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MENTAL HEALTH SERVICES IN THE COMMUNITY

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What are community mental health services?

Community mental health services are services located in communities that provide (1) psychiatric diagnosis, treatment, and rehabilitation to patients and their families, and (2) mental health consultation, training, and education to the nonpsychiatric organizations, agencies, and professions that serve the community on matters of basic health, education, and welfare.

Community mental health programs are in a state of rapid flux. No consensus exists at present as to what are the essential or desirable units of a comprehensive program for the control of mental disorders. Some trends are emerging clearly. The one that has gained the widest support is that services for persons with mental disorders should be located in the communities in which they live. Hence, the emphasis on "community" mental health services. Another trend is that help should be provided as early as possible in the course of the illness or disorder. A third trend of major importance is in relation to hospitalization for mental illness. At some point in his illness a patient suffering from a mental disorder may need hospital care. He may need several periods of hospitalization. The mental hospital is increasingly being viewed as one of a variety of resources in the treatment and rehabilitation of the mentally disordered and is being viewed less as either the sole resource or the end of the road.

It is now generally recognized that a comprehensive community mental health program involves far more than community mental health services as defined here. Effective prevention of mental disorders and promotion of mental health require good schools, health and medical care facilities and services, voluntary and public welfare programs, civic and religious organizations, housing, industrial planning, and all the essential services our society has developed. In addition, there is needed an organization or agency that has the assigned responsibility

of planning a program to meet the community's mental health needs, coordinating the efforts of the different agencies and groups, and checking on the effectiveness of the combined effort.

At present, and for the foreseeable future, a comprehensive program for mental illness and health must also rely on the public mental hospitals. These hospitals are still our chief means of coping with the major mental illnesses. Theoretically, the mental hospitals are, and should be, part of the community program. However, they are not generally so considered, and in practice less than 5 per cent of our nation's public mental hospitals and institutions for the mentally defective function as an integral part of any community's program, although some are moving in that direction.

What is the history of mental health services in the community?

A reform movement that began in the 1840's, led by Dorothea Lynde Dix, succeeded by the end of the nineteenth century in taking the care and treatment of the mentally ill out of the communities. The mentally ill became "wards of the state," a pattern set by New York's State Care Act of 1890. For almost a century the objective was to get all the mentally ill, if possible, into state hospitals for the insane (later called mental hospitals) and out of the jails, poorhouses, and asylums of our cities and counties. As these hospitals became overcrowded, early optimism about their ability to produce cures faded and the institutions became more and more custodial.

The Civil War sparked medical interest in neurology and there followed an impressive development of this medical specialty. Neurologists severely criticized the medical superintendents of the mental institutions, many of whom were psychiatrists. They charged the psychiatrists with self-imposed isolation from the mainstream of medicine, lack of scientific study, unwillingness to provide neurologists (who were outside the hospitals) with material for research, and in the words of Silas Weir Mitchell addressed to the Association of Medical Superintendents at their annual meeting in 1894, with failure "to preach down the idea that insanity is always dangerous, to show what may be done in homes, or by boarding out the quiet insane."

This was one of the origins of the development of present-day mental health services in the community. Out of it came the first organized psychiatric research program, the Pathological Institute of the New York State Hospitals. In 1902, Adolf Meyer became the head of this institute. In 1908, he succeeded in changing its name to the Psychiatric

Institute, having moved it earlier into the Manhattan State Hospital. From his observations of mental patients, Meyer developed his concept of mental disorders as maladjustments of the whole personality, a concept that led inevitably to community-based services.

At about the same time, important discoveries were being made about the nature of emotional responses and the interrelationship of emotions, physiological processes, chemical factors, and the individual's reactions to his environment. Major contributors in this period from the fields of psychology and neurology were Ivan Pavlov, J. B. Watson, C. L. Hull, Jean Martin Charcot, Pierre Janet, C. S. Hall, William James, William Sidis, William A. White, and Sigmund Freud. The net result of their efforts was the emergence of psychiatry into the world outside the mental hospitals.

Social work as a profession came into being in the second half of the nineteenth century. Social workers were first involved in the care of the mentally ill in providing for the indigent insane and for the families of hospitalized patients. The coming together of social work and psychiatry resulted in the development of the aftercare movement in America, some fifty years after its beginnings in France and England. Aftercare, as its name clearly denotes, is the provision of medical, financial, and social support for those who are discharged from mental hospitals. It was one of the first forms of community mental health services. New York's State Charities Aid Association established the first aftercare program in the United States in 1906.

Another mental health service in the community came into being at about the same time. The psychopathic hospital developed from a number of problems and needs. The term was first used in 1867 by Pliny Earle to describe a hospital for the "acutely insane." Actually the first one came into existence at Bellevue Hospital in New York City in 1879 for the temporary detention and observation of persons suspected of being insane. It resulted from public objections to the mistreating of mentally disordered people by the police. In 1902, at Albany Hospital in the capital city of New York State, J. Montgomery Mosher organized the first psychopathic ward in a general hospital, where in addition to facilities for detention and observation, treatment was also provided. To meet the needs of medical schools for training and research in psychiatry, similar wards were developed in university teaching hospitals, the first at the University of Michigan in 1906.

The first neuropathological research unit connected with a state mental hospital was organized in New York City in 1929, and combined

with the New York State Psychiatric Institute, which affiliated with the College of Physicians and Surgeons of Columbia University and is operated by the New York State Department of Mental Hygiene. This unit and one in Boston included in their functions the intensive treatment of acute mental disorders, as well as research and training.

From the work of psychologists in attempting to distinguish between emotional disorders and mental defect among children, from the mental hygiene (prevention of illness) movement founded by Clifford Beers, and from concern about juvenile delinquency, the child guidance movement developed at the turn of the century. In 1896, a clinic was started at the University of Pennsylvania by Lightner Witmer. In 1909, William Healy founded the Chicago Juvenile Psychopathic Institute to assist that city's juvenile court. (See *Juvenile Delinquency*)

The early psychiatric clinics for children were all connected with juvenile delinquency. After World War I, the present-day child guidance clinic movement came into being. Thomas W. Salmon, who played an important role in organizing the division of neurology and psychiatry for the American forces in World War I, organized a conference on prevention of juvenile delinquency in 1921. Out of this conference came a five-year demonstration program of child guidance clinics under the auspices of the Commonwealth Fund and the National Committee for Mental Hygiene. Among the psychiatric leaders in the development of the clinics for children and their utilization for childhood behavior disorders and personality problems other than delinquency are Lawson Lowrey, Marion Kenworthy, David Levy, and George S. Stevenson.

Public and professional awareness of mental disorders as illnesses not necessarily confined to the hospitals for the insane was heightened immeasurably by the large number of cases of psychoneuroses or shell shock, as they were commonly called, in World War I. Communities were then ready to accept the practice of psychiatry outside the hospitals. The private office practice of psychiatry developed rapidly thereafter.

The volume and range of mental disorders among our World War I troops had a much greater impact on medicine and the other helping professions than on the general public. Relatively few Americans knew of the cablegram sent to Washington by John J. Pershing, Commanding General of the American forces in France in July of 1918. General Pershing noted the prevalence of mental disorders in replacement

troops arriving in France and urged the elimination of the unfit prior to departure from the United States. The experience gained in World War I produced many of our leaders in psychiatry.

The period between World War I and World War II witnessed the acceptance and application of dynamic psychiatry by schoolmen, social workers, clergy, judges, correction officers, child health workers, in fact by virtually all service groups, and by many prominent industrialists. But the general public and the government were preoccupied with other problems, including the "great depression." As a result, mental health services in the community developed slowly and almost exclusively under voluntary auspices. The only substantial development was in the field of child guidance and resulted in the organization of almost three hundred clinics for children, most of which, however, operated only on a part-time basis.

In World War II, one and three-quarter million men were rejected for military service and three-quarter million were discharged, all because of mental disorders. Success in restoring to duty thousands of psychiatric casualties by care and treatment close to the front lines established a model and goal for today's efforts to control mental disorders—services close to the home and the community.

The first impact of this massive case finding was felt by the Veterans Administration, which by 1955 was caring for more than 50,000 hospitalized psychiatric patients, had a waiting list of 16,000, and was treating an additional 25,000 veterans in outpatient clinics. Under excellent leadership, the Veterans Administration services set a new high standard for care of mental patients and also organized programs to train mental health professionals in numbers never before approached.

In 1946, as a second result, Congress passed the National Mental Health Act, thus recognizing mental health as a major public health program. The act provided for the first time a method for federal financing of research and training programs and assistance to the states to establish community mental health services. The National Institute of Mental Health (N.I.M.H.) was formed in the United States Public Health Service and was charged with administration of the program. Under the dynamic leadership of Robert H. Felix, and with the assistance of outstanding professional and lay leaders in the field of mental health organized in a National Advisory Mental Health Council, the N.I.M.H. from the start played a major role in fostering the development of community services.

In 1954, New York State, stimulated by growing concern and interest in mental health problems and by the tremendous demands for more mental hospital beds, passed the first Community Mental Health Services Act. The passage of this law marked the first clear acceptance (by a state) of responsibility for the control of mental disorders beyond the institutional care of those whose illness was so severe as to render them dangerous to themselves or to others. It established a permanent system of state aid to localities for community mental health purposes, placing operating responsibility on local government with the state paying half the cost. By embodying the principle of home rule, it recognized that a mental health program can succeed only to the extent that local citizens accept and identify with it. The act also implicitly incorporated two important principles: (1) comprehensive programming in mental health requires the joint efforts of health, education, welfare, judicial, and corrective agencies, both public and private; and (2) treatment is a responsibility of the medical specialty, psychiatry, and the related clinical professions, but prevention and rehabilitation are shared responsibilities of all service professions, and promotion of mental health is the responsibility of the total community.

Since 1954, the following states have also passed community mental health legislation, varying in scope but generally patterned after the New York act: Indiana, California, Minnesota, New Jersey, Vermont, Connecticut, Wisconsin, Maine, South Carolina, Oregon, Utah, Wyoming, and South Dakota. A number of other states have appropriated funds and have passed laws or adopted regulations to stimulate the development of community mental health services. Among them are Kansas, Iowa, Georgia, Massachusetts, Nevada, and New Hampshire.

The community mental health services acts provide for support of all or some of the following:

- 1) outpatient diagnostic and treatment services;
- 2) inpatient care in general hospitals;
- 3) rehabilitation services, especially for, but not limited to, those released from mental hospitals and institutions for the retarded;
- 4) consultative services to schools, courts, health and welfare agencies, public and private;
- 5) education services to professional and lay groups;
- 6) collaborative and cooperative services with other public or voluntary agencies to prevent mental disorders and to rehabilitate those handicapped by mental disorders.

What problems are dealt with by community mental health services?

The full range of mental disorders are dealt with, although no one community in the nation has as yet developed a comprehensive program for all the disorders. Most of the community mental health acts use a broad definition of the disorders with which they are intended to cope. The New York act, for example, includes mental illness, mental defect, epilepsy, and behavior or emotional disorders. Services for alcohol and drug addiction are also encompassed.

At present, community services devote themselves largely to psychoneurotic conditions among adults and to emotional and behavior disorders of children. With the growth of general hospital psychiatry, acute psychotic conditions are receiving an increasing amount of treatment time in community services. There has also been a significant increase in community residential treatment facilities for severely mentally ill children. Rehabilitation programs for released mental hospital patients, many of whom are chronic schizophrenics, are also increasing. Through the efforts of parents of retarded children, diagnostic and evaluation clinics, counseling services, and day training centers for the mentally retarded are now included in the programs of a number of communities. Mental health services for alcoholics and drug addicts lag behind, although examples can be found here and there. Some slight increase in community mental health services for geriatric problems has been apparent in the last few years.

To whom are these services available?

In general, the services are available to those who cannot afford to pay for private care. Recent studies indicate that only 10 per cent of the population can afford to buy psychiatric care on a private basis. In practice, because of the absence of comparable services on a private basis and the scarcity of private practitioners, the services in many states and communities are made available to virtually all citizens, with fees charged according to ability to pay and with provision for third-party payments like Blue Cross coverage for hospital care.

How are these services organized?

Before 1954, when the first state community mental health legislation was passed, there was no planned organization of services for mental health in any community in the United States. No state had accepted responsibility for any service other than those provided by

their mental hospitals and institutions for the retarded. Significant parts of a total mental health program were provided in many communities by education authorities, by welfare officials, by public health departments, and by courts, but nowhere was there a central planning body or an organizational plan for mental health services.

Outpatient clinics were organized and operated by mental health societies, independent boards, voluntary health agencies, and nonprofit or public hospitals, as well as by the local government agencies previously mentioned. Most inpatient units or services were in public general hospitals and their principal function was observation to determine the need for state hospital care. Most of the remaining general hospital psychiatric beds were in teaching hospitals affiliated with medical schools. No meaningful relationship existed either among the outpatient services in any community or between these and whatever inpatient units existed. This was the situation, too, as between services in the community and the public mental hospitals. For the most part this is still the pattern in the states that have not passed community mental health legislation.

This fragmentation of services made it difficult, if not impossible, to provide for continuity of care based upon meeting the individual needs of patients at various stages of illness. Recognition of this state of affairs constituted one of the most compelling reasons for the passage of community mental health legislation. As local communities began to share with the state government the responsibility for the care, treatment, and rehabilitation of the mentally disordered, local community mental health boards were established either through legislative or administrative action. These boards are responsible for the organization and development of local mental health programs, which include prevention, community education, early diagnosis and treatment, care of the acutely and chronically ill and the retarded, aftercare services for those released from mental hospitals and schools for the retarded, and rehabilitation services for all those handicapped by mental disorders. Services and facilities may be operated directly by units of local government or by voluntary, nonprofit agencies. The latter are supported in whole or in part by grants-in-aid or service contracts from the mental health boards. Overall direction and coordination of all services is the responsibility of the local mental health boards. In most cases, professional standards are established by the state department responsible for mental health services, usually in cooperation with the local boards.

What are the different kinds of community mental health services?***1) The Outpatient Psychiatric Clinic***

Numerically this is the largest community mental health service. It is defined by the United States Public Health Service as a unit that provides outpatient mental health services and has a position for a psychiatrist who has regularly scheduled hours in the clinic and who assumes medical responsibility for all patients. A full-time clinic is one with the equivalent of four full-time professional people including the equivalent of one full-time psychiatrist, one full-time clinical psychologist, one full-time psychiatric social worker, and one additional full-time psychiatric social worker or other professional person. The latter may be a psychiatric nurse, a public health nurse, a pediatrician, a neurologist, an additional psychiatrist or psychologist, a speech therapist, a play therapist, a remedial reading teacher, or a professional with other training related to mental health.

A majority of the clinics are independent, nonhospital-connected units. They are either publicly operated or are organized as nonprofit corporations or associations. Some are units of a larger service organization such as a court, a school system, a welfare agency, a children's society, or a correctional agency or institution.

The chief function of a clinic is to provide services that make it possible for the patient to remain in the community while receiving care on an outpatient basis. Diagnosis is arrived at usually by a combination of psychiatric examination, psychological work-up, and social worker's assessment of the environmental situation. Clinic treatment is most often individual psychotherapy. Play therapy is often used in clinics that treat children. Group therapy, drug therapy, and shock therapy are growing in use. Long-term psychotherapy, until now the principal method of most clinics, is being questioned seriously on the grounds that its use is inappropriate in relation to the large numbers of persons needing service.

Some clinics treat adults or children only, others accept all age-groups. Some are all-purpose, that is, they attempt to serve all age-groups and do not arbitrarily exclude patients with certain disorders, such as mental retardation. There are clinics that are highly specialized, and these are usually found in large metropolitan areas. Examples of such specialization are clinics for alcoholics, for drug addicts, or for youthful offenders. Aftercare clinics for patients released from mental hospitals on convalescent status are another form of specialized clinic. There are also clinics specially organized for diagnostic evaluation and parent

counseling in mental retardation. There are a few clinics entirely devoted to geriatric problems, and some that concentrate on psychopharmacological treatment. The staffing patterns vary with the specific focus of the clinic.

The traditional pattern of clinic functioning is referral by some other agency or by a physician, intake interview, acceptance for treatment, or referral elsewhere. Recently emergency clinics have come into existence, patterned after some of the services in England and Holland. Walk-in clinics, where a patient can be seen day or night without previous appointment, have also been organized. Another clinic tradition—that the patient must come to the clinic—is being challenged by domiciliary (home) visiting and treatment by clinic teams. The city of Amsterdam in Holland has found this to be a most valuable service, and its use in the United States is growing. Some outpatient departments of general hospitals have organized psychiatric clinics patterned more nearly on the other medical clinics of the hospital than on the interdisciplinary team approach of the traditional psychiatric clinic. In the hospitals, there is a preponderance of psychiatric time and less social work and psychology.

The next few years are likely to see significant changes in clinic practice and organization because of the great increase in tax support of these services and the resulting demand for service to larger numbers of people.

2) Inpatient Services in General Hospitals

The traditional wide separation of the treatment of the mentally ill from the physically ill is lessening as a result of the steady expansion of general hospital psychiatry. Most psychiatric services in general hospitals are organized as units so that the psychiatric patients are kept separate from the medical and surgical patients. Changing attitudes and the efficacy of the psychotropic drugs are producing a trend toward dispersal of the psychiatric patients throughout the hospital, with provision for a very small number of secure rooms for acute toxic reactions and acute temporary behavioral disturbances.

The general hospital, as a place of treatment, makes possible comprehensive medical care. Early diagnosis and intensive treatment, with today's improved treatment techniques, can reduce the number of admissions to mental hospitals. Psychotherapy, both individual and group, physical treatment, drug therapy, activity therapy, all are used in well-organized psychiatric units of general hospitals. Staffing depends on the

size of the unit; obviously, psychiatric direction is needed as is psychiatric nursing. The other members of the clinical team in psychiatry and the activity therapists are used in various combinations and ratios.

3) *The Community Mental Hospital*

This is at present a goal rather than an existing community mental health service. Three or four demonstrations are underway in various parts of the United States. The model, borrowed largely from England, is a relatively small open mental hospital organized as a "therapeutic community" designed to retrain the patient to meet the normal stresses of an ordinary community. It receives patients on a voluntary or compulsory basis, carries on prehospital and posthospital outpatient services, engages in educational and consultant services and relates to all of the other health and welfare services of the community. Obviously, it must be located in the community. Hence, many of the existing public mental hospitals, which are located in areas remote from the population they serve, cannot be converted to this model. (See *The Therapeutic Community*)

4) *Community Mental Health Centers*

Only a few such centers are in existence now, but they represent the type of service most highly recommended by mental health planning groups. They differ from the concept of the community mental hospital only in that they do not admit certified patients. When fully developed, the centers provide diagnostic services, outpatient care, day, night, and 24-hour hospital care, transitional and aftercare services for the state mental hospitals, and, through consultation with other services and agencies, serve as the hub for preventive and mental health promotional activities. They have been developed in a few urban centers and are located as part of or close to general hospitals. The staffs of such centers include all professional personnel categories found in mental hospitals and clinics. With variations in size and scope of activities, they represent the probable prototype for the future organization of community mental health services.

5) *Day Hospitals and Night Hospitals*

As their names clearly denote, these services are either complete alternatives or transitional steps for full hospitalization. They have been organized in general and mental hospitals. In the day hospital, all the activities of a psychiatric hospital are available—psychotherapy,

drug therapy, shock therapy, adjunctive therapy activities, and the total milieu therapy program, as well as vocational rehabilitation. The patients benefit from the total hospital program during most of the day, and for the remaining hours of the day and night they are members of their family and community and maintain their ties with society.

In the night hospital, the hours of occupancy are reversed. Not all the therapeutic activities are available to night hospital patients, but they may receive psychotherapy (individual or group), drug therapy, and shock therapy. The night hospital, thus far, has been used mainly for patients in the process of separation from full hospitalization. However, some hospitals have found this service useful in other cases, particularly where there are family problems or where the patient requires supervision at night.

The programs of the day or night hospital are flexible and the amount and kind of service and care offered can be tailored to the individual patient's needs. Flexibility of this sort is not possible in the conventional outpatient clinic. Thus, many psychotic and neurotic patients can be helped without full hospitalization or complete separation from employment, family, or community. It is claimed that the total treatment period has been considerably shortened by the use of partial hospitalization.

6) *Community Day Centers*

Day centers were developed as a rehabilitation service for former mental hospital patients. They provided a meeting place for clubs composed of released patients. Clubs of former patients, largely self-organized, fill an important need for mutual aid and support preparatory to engaging in the regular social life of the community. Professional staff additions made possible the organization of social and vocational retraining and guidance activities and supportive psychotherapy, mostly in groups but also on an individual basis. New York, Philadelphia, and Los Angeles are three of about a dozen cities that have organized this type of service. Their programs are constantly growing, as staff and members find new ways of helping in the transitional rehabilitation of released hospital patients.

7) *Halfway Houses*

This service was designed originally as a transitional step for persons no longer requiring hospitalization but not yet ready to resume independent living. At first it was simply a supervised residence in the

community and was especially valuable for patients without families or whose families for various reasons were not able to take them back or were not suitable for the patients. The halfway house provides an opportunity for gradually reestablishing work, family, and social relationships. Many variations have developed. Some are now used to provide gradual separation of the patient from his family preparatory to full hospitalization or to test the effects of separation. Some have been established in separate wards or buildings on the hospital grounds, or elsewhere, by mental hospitals. Others have added vocational guidance and training and job placement to their programs.

8) *Sheltered Workshops*

A sheltered workshop is a small business, under nonprofit auspices, operated for the purpose of rehabilitating persons who have handicaps or disabilities and for the employment of handicapped people who are unable to compete in the normal labor market. Although such workshops have been available for people with chronic physical disabilities for a long time, only recently in this country have they been extended to include the mentally retarded and the mentally ill. They offer an opportunity for learning new skills or regaining competence in old skills.

For many, the sheltered workshop is a step toward regular employment in business or industry. For others, it may be needed as lifelong protected employment. This is especially true for the severely retarded. In several European countries, permanent protected work situations have made it possible for many severely retarded adults to live with their own families or in foster homes and have dramatically reduced the need for lifelong institutional care. In the United States, the term "adult occupation center" is now being applied to permanent, protected employment centers for the retarded.

Several of the sheltered workshops provide supportive psychiatric treatment and family counseling in addition to the vocational retraining and employment services.

9) *Day Treatment or Training Centers for Children*

There are many children who are too emotionally disturbed or mentally ill to be treated in outpatient clinics. Many of them present problems that cannot be coped with in the framework of schools, and are exempted from school attendance. In the last decade, day treatment centers have been developed that combine schooling and clinical treat-

ment for such children. Special teachers and group workers combine with the clinical team to provide an integrated therapeutic program that has made it possible to help even schizophrenic children while they continue to live with their own families.

Many parents are opposed to institutionalizing their severely retarded children. A relatively small per cent of the approximately two hundred thousand severely retarded children in the United States cannot be provided for in special classes in the public schools. Day training centers that provide socialization, habit training, special education, and prevocational training in combination with psychiatric and medical supervision and parent counseling have been developed to meet the needs of these children. (See *Mental Retardation*)

10) *Residential Treatment Centers for Emotionally Disturbed Children*

These are centers that provide 24-hour care in a therapeutic milieu for children with severe emotional problems. The program is an integrated one of education, group living, group therapy, and clinical treatment. A principal advantage of these centers over children's units in state hospitals is their proximity to families and the possibility of extensive family involvement in the treatment program. Return to full community living is facilitated by easily arranged transition to day or night services and the use of the regular school facilities as the child improves. There is as yet no consensus as to the range of childhood disorders that can be successfully coped with in these centers, or on the size, staffing, and building plans for the centers. (See *Residential Treatment for Emotionally Disturbed Children*)

How are they financed? What fees are charged?

Financial support comes from federal, state, and local government funds, from voluntary contributions made by civic organizations, foundations, community chests and united funds, and from fees for service paid by individuals, commercial health insurance companies, or voluntary health plans like Blue Cross and Blue Shield. Today tax funds provide most of the money, although data are lacking on the amount of health insurance and health plan payments. Funds budgeted specifically for community mental health services by the government (federal, state, and local) in 1961 totaled 91 million dollars; of this total, 6 million dollars were federal grants to the states. Since 1955, expenditures by state and local governments for community mental health services have increased almost tenfold. However, they still are only 10 per cent

of what state governments spend each year to operate the mental hospitals.

Although most large group commercial health insurance contracts provide some coverage for psychiatric care, this is not true of policies ordinarily available to individuals. In 1960, sixty-two of the eighty-five Blue Cross plans provided at least twenty-one days of general hospital psychiatric care in their basic contracts, but with many limitations. Only seven of the plans offered their subscribers mental illness coverage equal to that for physical illnesses covered. Very few plans covered care in mental hospitals. The experience of the plans that provide coverage is noteworthy: a rate increase of only 5 per cent has been sufficient to meet the additional costs. (See *Mental Illness and Health Insurance*)

The financing of community mental health services is clearly inadequate. The Joint Commission on Mental Illness and Health, appointed by Congress, recommended that public expenditures be doubled in the next five years and tripled in the next ten. The commission's final report stressed particularly the need for expansion of community services. It estimated the current direct and indirect costs to our economy of mental illness at 3 billion dollars.

Fee charges for community services reflect the fact that only 10 per cent of our population can afford to pay for private psychiatric care. Fee schedules in outpatient clinics range from no charge to \$15.00 for individual therapy, no charge to \$10.00 for group therapy, and no charge to \$20.00 for psychological evaluation—based on ability to pay. Where several members of a family are being treated at the same time, it is customary to limit the maximum weekly charge to any one family to the fees for two individual sessions. All-inclusive charges for inpatient care in a general hospital average \$28.00 per day. Nationwide data on fees for day care and night care are not yet available. In New York State the fee for day hospital care is fixed at 75 per cent of 24-hour care; night care charges are 10 per cent less. Costs in residential treatment centers for children range from \$12.00 to \$24.00 per day. Fees in training centers for retarded children range from \$4.00 to \$12.00 per day, and 30 to 50 per cent higher in day centers for emotionally disturbed children.

How many people work in this field in the United States? Is this number adequate?

Approximately 25,000 people work in community mental health services in our country. About half give full time, the rest part time, to community work. For example, there are between 11,000 and 12,000

psychiatrists in the United States. One-third of them are on the staffs of public mental hospitals and some of them spend a few hours each week in community services. About 60 per cent are in private practice, and some of them also spend a part of each week in community clinics or other services. About half of the 5,000 clinical psychologists and two-thirds of the 4,500 psychiatric social workers devote all or most of their time to community services. Nurses serving in psychiatric units of general hospitals number about 4,000. The rest is made up of neurologists, pediatricians, mental health educators, occupational and other activity therapists, special teachers, speech and reading therapists, and secretarial and other office workers.

This number is grossly inadequate. There are shortages in every category of professional worker. The extent of the shortages can be illustrated as follows: There is general agreement that at least one clinic team composed of a psychiatrist, a clinical psychologist, and two psychiatric social workers is needed for each 50,000 of our population. To achieve this for 1965, there will be needed 2,176 psychiatrists, 2,450 psychologists, and 5,223 social workers over what are now available. The mental hospitals, which should become integral parts of community mental health programs, need tens of thousands of trained personnel to meet acceptable community hospital standards. Hospitals and clinics are only two of the many community mental health services. Proper staffing of the full range of services needed for a comprehensive program calls for a major expansion of our facilities for higher education.

Overall shortages of mental health professionals are made worse by the tendency among them to cluster in urban areas. For example, a recent survey showed that about 55 per cent of all psychiatrists lived in the fifteen larger metropolitan areas of our nation, areas which hold only 30 per cent of our total population. In varying degrees, the same clustering is true of all the other mental health professions.

Are the services and facilities adequate for the problems with which they are concerned?

The basic function of community mental health services is to control mental disorders in a community's population. Control of disease is a public health term and it includes the following: prevent those mental disorders that are preventable; treat where treatment is feasible and effective; and reduce the disability produced by mental disorders where it is not possible to prevent or terminate the disorder. The causes of most of the mental disorders are still unknown and hence treatment

methods capable of terminating them are not available. Nevertheless, more is known than is being applied today, largely because there are not enough services and facilities.

Twenty years ago, one psychiatric clinic for every 100,000 people was a widely accepted, although entirely arbitrary, goal. More recently, two such clinics for the same number of people were recommended by the Joint Commission on Mental Illness and Health, again on an arbitrary basis intended to set as a goal the doubling of the present number of clinics. New York State is not very far from this goal now, and in several of its communities has exceeded it. Nevertheless, there are many people waiting for clinic service even in these communities. One clinic team for every 25,000 people may be a goal that is more realistic of actual need.

The general hospital is the medical center of the community. There are more than 6,000 general hospitals in our country—public, nonprofit, and proprietary—and all together they provide for only slightly more than 25 000 psychiatric patients. This number would have to be tripled to provide three general hospital psychiatric beds for each 1,000 of our population.

There are almost three-quarter million severely and moderately retarded individuals in our country. A wide variety of community services, presently lacking in sufficient numbers, is needed to avoid lifelong institutionalization of these handicapped individuals. Other groups for whom community services are grossly inadequate are the aged, the alcoholics, and the drug addicts. (See *The Aging and the Aged; Alcoholism; Narcotic Addiction*)

Is the public aware of these services? What is being done to make the public more aware of them?

Only a portion of the public is aware of community services. Middle-class people generally are not only aware of these services, they press for their development and expansion. Urban dwellers are more aware of them than rural people. Public awareness is increasing steadily.

Mental health associations carry on active public information campaigns stressing the value of early referral and treatment. The schools through their interest in mental hygiene play an important role in making many parents aware of the existence of child guidance clinics and other mental health services. General practitioners of medicine are becoming a major source of referral to mental health services. Public

health nurses, welfare workers, and trade union health plans are helping extend knowledge about these services to working-class families.

How many individuals make use of the mental health services in the community? Are there social, economic, or psychological characteristics that pertain to the majority of individuals who use these services?

Mental health clinic patients in 1961 were estimated at almost 500,000. Somewhat more than half were children under eighteen. Very few were sixty or more years old. General hospital psychiatric units admit about 200,000 patients a year, although most are admitted for observation and diagnosis only. Data on the number served by other forms of community mental health services are not available. On the basis of experience in states such as New York and California, it can be estimated that day centers, aftercare services, rehabilitation centers, sheltered workshops, and all the other services, at present serve less than 100,000 persons a year. In summary, about three-fourths of a million are now served by community mental health services. This is between 10 and 20 per cent more than are now cared for annually by the mental hospitals of our nation.

The majority of those who use community services are middle-class people with emotional disorders other than the major psychotic illnesses. Schizophrenia and the senile and arteriosclerotic psychoses are the illnesses that are most common in the mental hospital population. The clinics and those general hospital psychiatric units that provide treatment give most attention to psychoneurotic disorders. There is now a recognizable trend among community services toward serving persons with major mental illnesses. Through the organization of new forms of service such as day and night hospitals, day training centers, rehabilitation centers, and community mental health centers, and the use of all available treatment methods, emphasis is being placed on serving all social and economic classes.

Based upon current statistics and research, what might be predicted about the prevalence and role of mental health services in the community in the future?

In the future, all mental health services will be located in the community. Great Britain made this decision as a matter of national policy. The Joint Commission on Mental Illness and Health has made this its major recommendation to Congress. A special Governors' Conference on Mental Health in November, 1961, endorsed this recom-

mendation. Master plans for mental health services adopted by California and New York show the same trend.

Since 1956, the resident population of our public mental hospitals has been dropping, slowly but steadily. At the same time, there has been a steady increase in the number of admissions. The average length of a patient's stay has been considerably reduced, and the release rate has risen significantly. Communities are facing up to the need to provide supportive and rehabilitative services for ever-increasing numbers of released mental hospital patients. (See *Mental Hospitals; The Mental Patient*)

The tradition of state responsibility for the care and treatment of the mentally disordered is giving way to community responsibility, with financing shared by all levels of government and by voluntary and commercial health insurance programs. Many states are moving in the direction of decentralizing the large, remote mental hospitals. This is one of several steps being taken to coordinate the mental hospitals with the other services of a community program. The following recommendation of the Joint Commission underscores this trend: "The objective of modern treatment of persons with major mental illness is to enable the patient to maintain himself in the community in a normal manner. To do so, it is necessary (1) to save the patient from the debilitating effects of institutionalization as much as possible, (2) if the patient requires hospitalization, to return him to his home and community life as soon as possible, and (3) thereafter to maintain him in the community as long as possible."

Prevention and rehabilitation are obviously activities that must be based in the community. With growing emphasis on early and continuous treatment, the community will become the locus of comprehensive programs for the control of mental disorders.

MENTAL HOSPITALS

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What is a mental hospital?

A mental hospital is a "hospital" in the definitive sense of the word as opposed to a nursing or convalescent home, or a residential institution for special groups of people, such as the aged or orphans, or those who have no other home. It is a "hospital" devoted entirely, or almost entirely, to one or all of the various categories of mental patients.

In general, a good mental hospital is one that meets the required standards in at least a minimal way, one that not only cares for its patients with good treatment processes, but also handles its patients both scientifically and with human kindness and respect. A good mental hospital provides not only treatment, but also the conditions under which a patient may best utilize his latent and residual skills and assets. The staff of this hospital will be interested in both the immediate and long-term needs and aspirations of the patient. It will extend its influence to the prehospital conditions which the patient must experience, and to his posthospital needs in obtaining for him the best possible assistance after his discharge.

How many mental hospitals are there in the United States?

In 1960, there were 909 institutions designated as mental hospitals and institutions for the mentally retarded. This is aside from institutions such as nursing homes, homes for the aged, the chronically ill, or for the destitute, all of which house many mental patients.

This total is divided into 278 state and county mental hospitals, 102 state and county facilities for the retarded, 43 federal mental hospitals, 280 private licensed mental hospitals, and 206 private hospitals for the retarded. In addition, there were 510 general hospitals that contain psychiatric units and 1,111 general hospitals that receive psychiatric patients.

What kinds of mental hospitals are there?

There are private mental hospitals, most of which are relatively small though a few have from one hundred to four hundred beds. There



are hospitals operated by county government, and a few by city government. Some general hospitals operate psychiatric units. Mental hospitals are also operated by agencies of the federal government, notably the Veterans Administration. The United States Public Health Service operates a specialized hospital for narcotic addiction in Lexington, Kentucky, and a public hospital for general mental patients in Fort Worth, Texas. Some hospitals admit all types of mental patients—some are for “general mental patients,” and others are especially for the mentally retarded. There are also hospitals for special groups, such as aged mental patients, alcoholics, etc. State hospitals will be discussed later in this article.

What organizations develop standards for mental hospitals?

Mental hospitals are unofficially subject to standards adopted by the American Psychiatric Association and the Joint Commission on Accreditation of Hospitals. These organizations are unofficial because a hospital may be allowed to operate without meeting the standards of either group provided it does meet the requirements for a license under the designated authority in its state. These license requirements are usually related to physical conditions of health, safety, fire, and sanitation rather than meeting professional requirements of good treatment. The standards for psychiatric units in general hospitals are arrived at by agreement between the American Psychiatric Association and the American Hospital Association. Approval for the operation of training programs in mental hospitals is subject to the criteria set up by the American Medical Association Council on Medical Education and the American Board of Psychiatry and Neurology.

How is a hospital judged?

Generally by the expressed opinions of its own former patients, by its reputation among professionals in the mental health field, and by its general reputation in the community. One can inquire, for example, about the qualifications of the superintendent and his standing in related professional organizations, and whether a hospital is accredited. This information can be obtained from one's own physician, from state authorities, and from organizations of psychiatrists, social workers, psychologists, nurses, and other professional groups. One can also write to the national headquarters of accrediting bodies or consult the annual reports of these bodies to see whether or not a particular hospital is listed. The family physician and other civic leaders are often excellent sources of information. A visit to the hospital will help one

in judging it by the attitudes of persons in the hospital; the general reactions of patients as a whole; its cleanliness; and by the rules and regulations of the hospital, as they meet the reasonable demands of both patients and families.

Why are so many mental hospitals quite large?

Public hospitals are usually much larger than private hospitals, because the public demand for more and more people to enter hospitals has in the past exceeded the hospital beds available. The general inclination at any level of government is to add beds to existing hospitals rather than to build new ones, partly to save time and money. State and federal hospitals nearly all have more than 1,000 beds. Many state hospitals have 2,000 to 6,000 beds, some have 10,000, and one or two run between 12,000 and 14,000. Even so, most of these large hospitals are overcrowded according to the standards for space requirements set up by the American Psychiatric Association. Some administrators defend the large hospital by saying it can operate just as effectively as a small one if its patients are divided up into small treatment and organizational units. Others dispute this and believe that size alone is a serious detriment to good treatment processes. It is probable that size is of less importance; inadequate staffing and geographic isolation are the objectionable features.

Are big hospitals sometimes divided into smaller units?

The trend is to make virtue out of necessity and divide large hospitals into smaller units even though they are all part of one organization. For example, a hospital of 6,000 beds may be divided into 1500-bed units, each under an assistant superintendent. This principle is used in even smaller units. Though helpful, the decreased size does not entirely compensate for the increased problems in administration and communication.

What changes have been made in mental hospitals in recent years?

It is rare that conditions of confusion, disturbance, noise, and violence can be observed in mental hospitals today. Patients are quieter, more easily controlled. More treatment methods are available to handle their emotional needs. One of the most important new aids lies in the tranquilizing drugs, which alone have brought a semblance of quiet and less activity to most of the patients in the nation. Other factors

include a greater number and better qualified personnel to work with patients. There are programs of activity, management, and treatment, and a lessening of physical restrictions such as straitjackets, patients being tied to their beds, and patients being locked in small solitary rooms. Other improvements have been in the opening of more and more doors so that patients can come and go as they please, lessened restrictions on communication, visiting, mail, and telephone calls. In general, the hypothesis that the "more restrictions the greater the disturbance" is proving to be true. The accepted view is to limit restrictions and encourage activities on the part of the patient.

What is the significance of these developments in the hospitals?

Chiefly, that patients need to stay less and less time in mental hospitals, and they do better if they are treated nearer home. They need to improve in the environment in which they became ill, and more and more patients are being handled in a variety of treatment programs and "living" programs. (See *The Therapeutic Community*) Hence, the big mental hospital is changing to meet these conditions and new ideas.

How do public mental hospitals compare with other public hospitals in size and status?

In general, public mental hospitals are much larger than other hospitals. The occasional municipal and county hospital may run to 2,000 beds, but generally speaking most general hospitals have from 50 to 100 beds. The status of mental hospitals is improving, but has been low for many years in the nation as a whole. It is generally believed and still reported by the American Psychiatric Association and the Joint Commission on Mental Illness and Health that only a small percentage of mental hospitals meet the requirements of active treatment. It is fair to say that all mental hospitals have at least one section which is doing creditable work, and many of them have splendid treatment services for all patients, but the great majority of even the better mental hospitals in the country do not provide treatment services for more than half their patients. The other half have different degrees of general care—including cleanliness, clothing, and physical fitness.

The amount of money spent on mental patients in public mental hospitals is about 20 per cent to 25 per cent of that spent on patients entering a general hospital. This disparity results in less satisfactory services, occasional neglect, and a definite shortage of personnel. The

majority of persons working in these hospitals are faithful and devoted to the patients in their care; but both patients and professional staff suffer to some degree from the public's attitude that public mental hospitals give rather poor service and are something to be ashamed of.

What psychiatric facilities are available in general hospitals? How do their treatment methods differ from those within a mental hospital?

General hospitals are likely to have specialized units for mental patients. The units are convenient for staff physicians' patients and for patients in the hospital who have temporarily become delirious, psychotic, or confused, and need this special care. Mental patients are often kept in the medical wards of a general hospital and get along well, depending on the extent of their condition. As the psychiatric units in general hospitals have become more and more common, a very high percentage of mental patients are being admitted to general instead of state hospitals. Their total number, including those in county general hospitals, is nearly as large as those admitted to state hospital systems.

The patient's attitude about entering the psychiatric unit is likely to be no different from that of any patient entering the general hospital. Admission is usually on a voluntary basis because very few general hospitals have the authority to accept committed patients. Customarily, the admission procedures are minimal, and treatment can start at once. As a rule, the hospital supplies all the needed auxiliary services so that the patients are usually released rather promptly, many in four or five days, others in two or three weeks.

The patients' schedule in a general hospital is not too different from that of a big mental hospital: they generally have their meals together, share a certain amount of public space, mix with other patients, both men and women, and engage in regular activities, including recreation and perhaps physiotherapy. They see their own doctor at stated intervals and by appointment. Interns and residents are usually available to assist the private physician to carry out part of the treatment and to accept partial responsibility. The charges in the general hospital far exceed those of the public mental hospital, and may run to \$25, \$30, or \$35 a day. Extra private nurses may make the expense still more. One important consideration is that the treatment in the general hospital is usually intensive and thus the stay is relatively short. The patient is likely to save money in the long run by spending more money for a shorter time than by staying at an inexpensive place for an indefinite or longer time.

What is the mental health program of the federal government?

The Public Health Service has for some years operated a mental hospital for narcotic addicts in Lexington, Kentucky, and a hospital for general mental patients, including narcotic addicts, at Fort Worth, Texas. In addition, the Public Health Service operates the National Institute of Mental Health, which has divisions for research, professional training, and community mental health services. The Department of Health, Education, and Welfare operates the Children's Bureau, whose maternal and child welfare section is interested in mental disorders and also has an active section for the mentally retarded. The United States Office of Vocational Rehabilitation has as part of its program the rehabilitation of the mentally ill.

The hospital for narcotic addicts in Lexington, Kentucky, is available to all persons in the United States who come voluntarily and pay their own transportation. Once there, they are kept without charge. The Department of Health, Education, and Welfare supervises St. Elizabeths Hospital in Washington, D.C., which takes care of the mentally ill in the District of Columbia, and other individuals who are wards of the federal government. Admission may be voluntary or through order of the Court of the District of Columbia.

The National Institute of Mental Health was created by the Mental Health Act of 1946. It is in charge of all federal mental health activities, which include twelve to fifteen hospitals throughout the country.

The Veterans Administration since 1923 has operated not only general medical and surgical hospitals, but also mental hospitals. Since 1961 there are forty hospitals that are "predominantly" mental hospitals because a number of medical and surgical beds have been added to the mental hospitals to form a separate service. As of 1960 the Veterans Administration had a total of 72,000 beds for mental patients; 57,163 were in mental hospitals and about 15,000 were in general hospitals.

Eligibility for admission to a veterans hospital depends upon producing proof that one is a veteran of any war in which the United States has fought. Veterans with service-connected illnesses have a direct claim on hospitalization. Persons with nonservice illnesses may be admitted for treatment in an emergency situation or for other reasons if there is a vacancy. Veterans Administration hospitals are known for their extensive research and training. In addition, they have a higher expenditure for services and a higher ratio of personnel to patients than do most other public hospitals. However, in order to meet recognized standards, they must still make many improvements.

Mental patients in V.A. hospitals may be released for treatment in their home localities. Service-connected mentally ill patients may also be treated by local physicians on a contract basis with the Veterans Administration or by mental hygiene clinics that are under V.A. auspices or contract. Contracts are arranged through the regional offices of the Veterans Administration. Veterans who need any medical care, physical or mental, may apply to the regional office.

Treatment for mental patients in the armed services is furnished only in small units in general hospitals of the United States Army or Navy. After a brief treatment they may be discharged from the service and referred to veterans hospitals.

What is meant by "state hospitals"?

State hospitals, which include hospitals for the mentally ill and the retarded, are run by state governments. These hospitals take care of the vast majority of the chronically mentally ill.

The first such hospital was founded in 1773 in Williamsburg, Virginia, and marked the state government's acceptance of responsibility for mental patients. Other states followed suit and in early 1962 there were 229 state hospitals for mental patients and 114 hospitals or schools for the mentally retarded.

Before this time, many mental patients were in county institutions. In many other places, they were in state institutions but their respective county government paid the expenses. In the last twenty years, most counties have ceased operating hospitals for the mentally ill and the mentally retarded. The states have taken over this responsibility. Only Iowa, Wisconsin, and New Jersey have retained their county systems.

Nearly all state hospitals have over 1,000 patients; a few have over 10,000. Smaller states usually have one hospital, larger states several. Usually they are located in various parts of the state and most often at some distance from the population centers. Some larger states have special hospitals for those mentally ill who have become court cases.

What are the strengths and weaknesses of a state hospital? What trends are now being seen?

The chief weaknesses of state hospitals are overcrowding, shortage of personnel, and, because of insufficient appropriations, very little follow-up on the released patients. A great many patients have to remain too long in the hospital because of a lack of good treatment programs. Usually these hospitals are located in isolated areas and this

fact has made it difficult to secure a good staff and to keep up to date in treatment advances. Using the theory that administrative costs per patient went down as hospitals became larger, additions were made to old hospitals, rather than to build new smaller ones. Consequently, most mental hospitals are far larger than is satisfactory.

Nevertheless, the strengths of state hospitals are increasing; many have made important advances since World War II. Intensive treatment within the hospital is available to as many as 50 per cent of the patients. Because of new treatment processes many patients are being released within three to six months; about 90 per cent are being released within a year.

Mental hospitals have become political issues and profit from this fact. State administrations and legislatures realize that the public wants better facilities for the mentally ill. Hence personnel has increased, with about one employee to every three-and-a-half patients. The best states may have one employee for every two patients. This is a real contrast to the situation before World War II when the national average was one employee to every eight patients. Training and research have also increased in state hospital systems; however, there are numerous personnel vacancies and in many cases less than half the personnel is properly trained. Much of the criticism of state mental hospitals in the past is now less valid. It is still true, however, that the public hospitals of the nation are generally used by those who cannot afford private facilities. Persons in the higher financial brackets almost always enter private institutions.

Why are provisions for the mentally retarded included among the provisions for the mentally ill?

The mentally retarded are generally included in the mental health programs of state governments, but whether or not mental retardation is a form of mental illness is still controversial. Most of the mentally retarded suffer from certain genetic, organic, or other disabling conditions. They are intellectually and socially handicapped, and frequently they have neurological, physiological, and intellectual deficiencies. Almost invariably they are also victims of an emotional condition that makes them unable to live up to their own basic ability. They are thus psychiatrically handicapped as well. Many feel that the psychiatrist is best equipped to deal with all these needs; others believe their chief problem is a social one and that the retarded can only be helped by training. (See *Mental Retardation*)

What kinds of institutions do the states operate for the mentally retarded?

In most large states, institutions for the mentally retarded are called hospitals, and every effort is made to help them qualify as hospitals. Diagnosis, medical and psychiatric treatment, rehabilitation, training, and education are all equally stressed. Those institutions that are called schools are usually run by educators, and training is the most emphasized part of their treatment. Medical, neurological, and psychiatric services are also supplied, but frequently are less emphasized because of difficulties of recruitment. Hospitals for the retarded are generally isolated and suffer from this isolation. The institutions for the retarded are usually inferior to the state mental hospitals.

Special institutions for the retarded who have become court cases (sometimes referred to as "defective delinquents") have been set up in some states. Such special institutions may be under the department of corrections or the department of mental health. When the number of offenders is insufficient for a special institution, they are usually accepted in the regular institutions for the retarded, which may have a "maximum security unit" for these court cases.

State laws for the hospitalization of the retarded often resemble those for general mental patients, but may differ in certain respects. For example, many states do not permit voluntary hospitalization by the retarded, but require all to go through a judicial procedure. Most states do not recognize an obligation for the retarded person who is twenty-one years old or older unless he has entered an institution before that time.

What services are available to the retarded as alternatives to hospitalization?

The development of school classes for the mentally retarded is of great help to a family in maintaining their child at home. Day hospitals may very properly be used to care for a retarded child during the day, thus permitting the family to handle the situation without too much difficulty. Sheltered workshops are also important, and should be developed in numerous communities. Financial assistance for such purposes as "maternal and child welfare," and for "crippled children" is available from the United States Children's Bureau, which co-operates with national, state, and local organizations.

What facilities are available for the "mentally ill offenders"?

These include persons convicted of a crime and considered mentally ill and those who become mentally ill after being convicted of a crime.

Both groups may be handled at the same place, which may be a branch of a mental hospital, or a separate hospital. In most states, care and treatment of the criminally insane is handled by the Department of Mental Hygiene, and in one or two states by the Department of Corrections. Special sections with provisions for maximum security are set up in the state hospital and treatment is handled by the same staff that operates the hospital.

What facilities are available for narcotic addicts?

Narcotic addicts are of unknown but large number, particularly in the larger cities and near the coasts. In many instances imprisonment and sometimes even the death penalty are prescribed. On the opposite extreme, some groups advocate that medical clinics handle all narcotic addicts and furnish them with drugs at very low cost in order to discourage the fundamental cause of the narcotic traffic, i.e., the huge profits. Nearly all state hospitals have some narcotic addicts in their population and these are most often treated without a special program except that some special attention is directed toward their fundamental illness. In some states, notably California and New York, special programs for the addict have been created. Morphine and heroin addicts are the most prevalent cases. Relatively few marihuana addicts find their way into state hospitals. (See *Narcotic Addiction*)

What facilities are available for alcoholics?

Alcoholics are admitted to nearly all state hospitals, although discouraged by some, presumably because of the difficulty in accomplishing results. Some states have passed special laws to permit alcoholics without psychoses to be committed for a shorter than usual stay in the hospital. Most state systems have no special hospitals for alcoholics, but many private sanatoria are limited to alcoholic patients. In general, a fair percentage of alcoholics are helped in mental hospitals; and in some hospitals with wards for special attention to alcoholics the results are impressive and encouraging. An important problem in the admission of alcoholics into state hospitals is that if they enter voluntarily, they are likely to leave within a very few days, as soon as their in-

ebriated condition disappears. Adequate examination of these patients, a long and expensive procedure, is thus likely to be wasted. Mental hospitals customarily work closely with Alcoholics Anonymous. (See *Alcoholism*)

What facilities are available for the aged?

About 30 per cent of the population of the average state hospital is over sixty-five years of age. The great majority of patients over sixty-five has been in the hospitals some time and has grown old there. However, about one third of first admissions are over sixty-five years of age. They are sent to the state hospital because of the reluctance of medical and surgical agencies to work with persons who are not entirely clear in their minds. This step might not have been necessary if their physical condition had been treated adequately. Some of the mental conditions of the aged improve as the physical conditions are treated. Most of the persons entering mental hospitals after sixty-five are care, feeding, and nursing problems. A fair proportion, however, are not senile but rather are suffering from a mental condition that is related to a physical condition. It should be emphasized here that a great deal can be done for aged persons by the community to keep them healthy, interested, and enjoying life, thereby perhaps preventing their admission to a mental hospital. This is the most encouraging area of prevention and all communities should examine their resources for maintaining physical and mental health in their older people.

What facilities are available for children?

State hospital care of children is further behind in terms of furnishing adequate facilities than is the care of any other age-group. Children who are emotionally disturbed tend to be a serious problem of management and treatment and may need much longer treatment than adults. The attention which these children need requires a high ratio of personnel to the number of patients; hence these treatment units are excessively expensive and very difficult to operate economically. State hospitals have been discouraged from setting up children's units by those who feel that children should not be treated in the same environment as adults. However, very few other treatment facilities have been developed.

It should be remembered that children's illnesses frequently cross many boundaries. Children may be emotionally disturbed and at the

same time be retarded and suffer from multiple physical handicaps. Perhaps the most important observation is the lack of coordination between the various children's services and agencies. A few good private institutions for disturbed children exist. Information about them may be obtained from the American Psychiatric Association and the Academy of Child Psychiatry.

What are the characteristics of the private mental hospital?

There are about 280 private mental hospitals. Their location shows a spotty distribution throughout the United States, with many more in some states than in others. For instance, California has 91, or a third of the total number. Illinois, Maryland, Massachusetts, Michigan, New York, Pennsylvania, and Texas have from 10 to 20 each, leaving the remainder each with one or none. The hospitals vary in size from a small unit of 10 or 12 to as many as 400 beds in some of the older nonprofit endowed hospitals. Their ownership varies—it may be a single physician, a corporation, or a family who shares the stock. The types of patients in any one single private hospital are very likely to be limited because of the size. Some of these hospitals, therefore, may be specialized for older patients only, for children, for general mental patients, for retarded, for alcoholics, or for narcotic addicts. Some of them accept public patients under contract with a governmental agency such as a state or county government. Patients in private hospitals are usually able to pay more than those entering public hospitals. They are more likely to be referred by a private physician who often administers the treatment himself in the hospital.

The quality of care and treatment in private institutions varies. Nevertheless, the physical standards of the institution are controlled by sanitation, fire, and safety laws. Certain requirements are necessary in order to obtain a state license. Some private hospitals accept only voluntary patients, while others have a license which permits them to accept "committed" patients. In these cases, the hospital is responsible for providing the necessary security. As a rule the quality of care is good, although some private institutions do not merit such high praise.

What is the status of the private mental hospital?

In terms of social status the private hospital enjoys a higher rating than does the public hospital. Most people prefer a private institution to a public one, if they can afford it. The increased coverage of hospital

insurance is likely to enable more people to afford private attention of this type than in the past. The contrast between the two groups is largely because state and federal appropriations have been insufficient to give the best quality of intensive treatment and rehabilitation to all patients. However, this is changing and quite a few public institutions enjoy the fullest confidence of the community and, in some instances, are preferred to private institutions.

The administration of a private hospital varies according to its ownership and the general philosophy of the owners. Some private hospitals are essentially a one-man operation, and the relationship between the owner and the patient can be a very warm and friendly one. Psychiatrically trained physicians are in charge of most private mental hospitals. However, in an appreciable number, a business administrator is in charge and is responsible to the owners. He, in turn, either hires the staff physicians, or, if the hospital permits, supervises outside psychiatrists who bring their own patients into the institution.

Private mental hospitals usually operate under costs quite similar to those of general hospitals, from \$25 a day and up. Occasionally a private institution which supplies only the room, board, and general nursing care will be as little as \$12 a day. Insurance, pension funds, savings, and a higher standard of living are providing more and more people with the financial ability to seek private institutional care.

What other types of private institutions exist for mental patients?

Some private mental institutions operate as sanitarium or rest homes and do not need to apply for a mental hospital license. These are not too different from mental hospitals except that they may restrict themselves to voluntary patients and avoid all court or commitment cases. They do, however, take patients with major mental illnesses who can be safely managed in an "open-type" facility.

Information concerning private mental hospitals may be obtained from the state Department of Mental Health. The Joint Commission on Accreditation of Hospitals (200 East Ohio Street, Chicago 11, Illinois) may offer information as to whether a private institution has been accredited or approved by that organization. The American Psychiatric Association (1700-18th Street, N.W., Washington 9, D.C.) may state whether a hospital has been approved by its group. The National Association of Private Psychiatric Hospitals, 153 Lakeview Avenue, Leonia, New Jersey, may also give out such information. Membership in that organization means that the hospital has met the association's re-

quirements for proper care of mental patients in terms of staff, treatment, and living facilities.

What innovations or extensions to mental hospitals are being developed to better handle the needs of the patient?

1) *The Branch Hospital.* Occasionally a group of patients are removed to a special building close to the hospital or even at some distance, where they live under conditions more suitable to the group than is the big all-purpose mental hospital. For example, in British Columbia the Homes for the Aged are branches of the provincial mental hospital. Some are new and architecturally developed for the use of elderly patients, many of whom must use wheelchairs. Other branch hospitals are for persons who like to work on a farm.

2) *The Sheltered Workshop.* This residential development accommodates people who are able to work under close supervision and who then get assistance in marketing their wares. Sheltered workshops for daywork by mental patients are not uncommon, but those that also provide living quarters are rare, as compared with the number of those for the physically handicapped.

3) *The Halfway House.* This may be an extension of the mental hospital or may be an independent institution. It provides a temporary place to live for persons coming out of the hospital while they get used to living with others in a normal world. They may stay here until they feel more comfortable, or find a job, or until they find another place to stay in or out of the family situation.

4) *The Therapeutic Farm.* Farm situations are considered helpful for persons who need a long-term, relatively inexpensive, living arrangement, and one which permits outdoor exercise and a simple life. Some farms are set up for certain groups, such as alcoholic patients. They are also used for people who have been ill for an extended period and still need a good deal of time to make their adjustments. There are several in the eastern part of the United States; the principle is so sound that they could be used in any part of the country.

5) *The Day Hospital.* This is usually a hospital without living quarters designed to allow patients to spend the day there but to return home in the evening. It is frequently a hospital adjunct, located either in a nearby town or even as close as the hospital grounds. Various forms of therapy that are usually found in the residential hospital can be available in the day hospital.

6) *The County Hospital.* Originally many states took care of their

patients in county hospitals, most of which have been taken over by state government in the last thirty years. But in several states, at this time, those patients who do not improve in the state hospital in a short length of time go back to the hospital in their home county. The present movement to have people treated near their homes indicates that county hospitals may soon be used more than in the last few decades. When the resources for maintaining standards of treatment are not available in the county, other levels of government may have to intervene and give assistance.

7) *The Night Hospital.* This represents an arrangement in which patients, for a few days or weeks, can enter a mental hospital at the end of the day, get treatment in the evening, spend the night where they can have some supervision, nursing care, psychiatric attention, and social life with other patients, and return to work the next morning. This arrangement goes on in some state hospitals and some private hospitals. For some time, hospitals in rural areas have allowed patients to work outside the hospital during the day, for example, earning money on farms. This differs, however, from the night hospital in that the night hospital is primarily a short-term arrangement.

8) *The Five-Day Hospital.* This reflects the practice of many institutions to allow and even encourage their patients to go home on all weekends. This is another phase of the growing tendency to keep patients from remaining in hospitals for a long period of time, or if that is undesirable, to have their stay at the hospital broken up by frequent visits to their homes.

How many beds are there in mental hospitals?

In 1960, there were 792,597 beds in all mental hospitals and in institutions for the mentally retarded. These are divided into: state and county hospitals, with 545,150 beds for the mentally ill and 153,690 beds for the retarded; federal hospitals with 63,231 beds for the mentally ill; private hospitals with 14,604 beds for the mentally ill and 8,116 beds for the retarded; and in general hospitals 7,806 beds for psychiatric patients but none for the retarded.

How does this compare with other countries?

Whereas the number of seriously ill mental patients in most countries seems to be about the same in terms of population, the number of hospital beds varies considerably. The beds available for mental patients in the United States, Canada, the United Kingdom,

and in most countries of Western Europe are about the same, i.e., from one to four beds per thousand people. In some countries, however, this figure may be as low as one bed for ten thousand people. Various countries absorb or tolerate patients with mental disorders to varying degrees, according to the opportunities for keeping them at home, or the tolerance of the people in allowing the mental patient to participate in the community.

What is the estimated number of mentally ill persons in the United States?

Reliable information on this question is not entirely available, but certain studies indicate that perhaps one out of each ten persons suffers from some form of mental disorder. This includes those sick enough to be in hospitals, those who are under treatment, and the vast majority of patients who are not under treatment and are carrying on at home, on their jobs, etc. A large number are known to be in prisons, work-houses, institutions for chronically ill, and in industrial schools for the delinquent.

The figure, one out of ten, came from a study recently done in an eastern metropolitan area. Other studies are currently in progress. It is not known whether the figures obtained in this one area are valid for the entire United States. One out of ten persons would mean a total of about 18 million, most of whom are only mildly ill and carry on in some fashion.

How many persons in the United States are in mental hospitals?

Of those who could be counted it is estimated that about a million and a half were in hospitals during 1960, including the more or less permanent residents and those with short stays. In addition, it is estimated that between 220,000 and 400,000 enter general hospitals each year and are either in a psychiatric unit or in the general hospital in beds alongside other types of patients. The numbers located in county chronic disease wards and in county homes for the indigent and aged are not known. While the private mental hospitals in the United States have only about 2 per cent of the total "mental" beds, they actually take care of about 25 per cent of the total number of patients admitted in a year. In one state it is obvious that state hospitals do not handle even the majority of mental hospital admissions. In California, for example, state mental hospitals in 1960 admitted about 26,000 patients. Private institutions licensed as mental hospitals accepted about

22,000 admissions; and general hospitals, including county hospitals and nursing homes, about 24,000 admissions.

Are there enough hospital beds for mental patients in the United States?

In the United States, the numbers of public mental hospital beds available in the different states run from one to as high as eight and a half beds per one thousand persons. Generally speaking, the commonly accepted view now is that, for the good of the patient, he should be hospitalized near his home and kept in the hospital for as short a time as possible. In this way, nearly everyone who needed hospital care could be handled properly. From this point of view one can say that there are enough beds in the United States at this time, though poorly distributed. Some of the hospitals that provide these beds are poorly equipped and poorly staffed, with little or no treatment available. Perhaps it would, therefore, be fairer to say that there are not as many fully staffed and well-equipped hospitals for acute treatment and for rehabilitation as there should be, but there are probably enough beds so that no more need to be added; those we have should rather be improved.

Where are nonhospitalized mental patients treated?

A certain number of mental patients are taken care of in the outpatient clinics of general hospitals and in various mental hygiene clinics throughout the country. These would possibly total as many as 400,000 patients. Other nonhospitalized mental patients are treated in the private offices of physicians, chiefly psychiatrists. An estimated one million to one million and a quarter are being seen there annually, obviously only a small part of the total number of mental patients. The rest are seen in the various institutions, medical and nonmedical mentioned above, while the great majority of the mildly ill mental patients are unidentified. It is this large group that may be seeking treatment as treatment becomes available. When it does, there may well be a greater shortage of facilities than is recognized at this point.

What is meant by "first admission" and "readmission"?

In collecting information concerning the movements of patients in and out of mental hospitals, those who enter are treated under two terms, "first admission" and "readmission." "First admission" refers

to any person entering any mental hospital for the first time in his life. "Readmission" means anyone entering a mental hospital who has previously been a patient in a mental hospital.

How does architecture influence the operation of a hospital and its patients?

The physical environment in which a patient lives is reflected in his reactions, in his feelings of being free or held in, in his associations with the past, in the convenience with which he can move and circulate with others, and in the general atmosphere of his life. For example, wheelchairs need ramps, older people need to be on the ground floor, access to the outdoors is important for everyone. All these things must be considered in constructing a mental hospital. The physical environment determines the ratio of fresh air to total amount of air in a dormitory or playroom, the amount of light entering, the number of cubic feet of air in a bedroom, the amount of space in which the bed is situated, and the amount of space available for the patient to move in and mingle with others—the so-called "public space." Mental patients differ from general hospital patients in many ways, one of the most important being that most mental patients spend very little time in their beds or bedrooms. Generally speaking, unless they are confined to bed, the greater amount of the mental patient's time should be spent in public spaces with other patients and in involvement with various forms of treatment and activities.

What changes in architecture are beginning to appear?

In the past public mental hospitals tended to be large, multistoried buildings, massive in appearance and depressing in their general effect on the patients. Large dormitories with a hundred or more patients were common.

The older United States hospitals were commonly influenced by the "Kirkbride Plan," which consisted of a large central administrative unit, usually with the quarters for the superintendent above, and with wings on either side, one for men and one for women. Generally they had high ceilings, very wide corridors, and large wards without partitions or alcoves.

The recent movement has been to place patients in small groups. Large dormitories are broken down into smaller rooms and alcoves. Small buildings, or small cottages, holding up to a hundred patients

are used, and broken down into smaller units of 20 or 30, or sometimes as few as 15 or 18. The greatest change is the single story or at most the two-story building, with a great deal of sunlight and color, and a better organized arrangement of space to permit the circulation of patients from bedroom to dining room, to activity and recreational centers, and to the outside.

What is the Hill-Burton Hospital Construction Act?

In 1946, Public Law #725 was passed by the Congress of the United States and is known as the Hill-Burton Hospital Survey and Construction Act. This supplies funds and permits the United States government, through the Hospital Construction Division of the United States Public Health Service, Department of Health, Education, and Welfare, to participate in the financing and to set standards for the construction of hospitals throughout the United States. The act was originally designed to assist in the building of many small community hospitals. It also allowed monies to be used for state and other mental hospitals.

What is the cost to the patient to stay in a mental hospital?

Private: The fee may be relatively low if the hospital merely furnishes room, board, and general nursing care and the professional bills are sent to the patient's personal doctor. For private hospitals furnishing total care, fees can range from \$250 to \$1,000 or \$2,000 a month. Private physicians frequently reduce their charges for those who are unable to pay full rates and a few persons pay far below the usual rates at some nonprofit, endowed private hospitals that have great diversity regarding their charges.

Public: Government hospitalization is usually furnished without charge to indigent persons or with appropriate charges if the patient has a limited income. State hospitals ordinarily have an upper limit which they are allowed to charge. The fee may be the average estimated amount the state pays for the care of its patients by the day.

What is the cost to the hospital per patient?

In general, public hospitals spend between \$4 and \$10 per patient per day. The Veterans Administration mental hospitals spend \$12 and upward per day, consequently, they can have a higher ratio of personnel to patient and usually can give considerably better treatment.

Are relatives responsible for a patient's bills?

The patient's relatives have by law various amounts of responsibility for his bills, but the laws vary a good deal throughout the states. Usually the state Department of Social Welfare or the county welfare department can furnish this information.

What kinds of hospitalization insurance exist? How much coverage do they offer?

Certain private insurance carriers—industrial, commercial, and professionally sponsored—such as the Blue Cross Association, include coverage of mental disorders in various degrees. Many health insurance policies exclude mental illness coverage entirely on the basis that it is too expensive and that these illnesses usually are too lengthy. Others include coverage for a few days, while still a few others include mental illness on the same basis and for the same number of days per year as for any other illness. Hospitalization insurance should be carefully scrutinized to be certain if and what kind of mental illness coverage is available. Occasionally "catastrophic insurance" can be obtained for long-term illnesses and this should be investigated as to whether it includes mental disorders. (See *Mental Illness and Health Insurance*)

Hospital bills for mental disorders usually have to be supplemented by the patients' own resources, even though they may be assisted by insurance or by some sort of public fund. These public funds can include welfare monies from county agencies, who, in turn, can have their contributions matched by state and federal monies. Public hospitals will usually accept persons who are unable to pay but they make suitable charges to those who have limited resources.

What financial assistance do government services offer for the mentally ill?

The federal government, except for the hospitals it operates, does not contribute to the operation of hospitals in any state, county, or city. There is a movement afoot to initiate this process as recommended in the 1960 Report of the Joint Commission on Mental Illness and Health. Social Security funds from the federal government are available to pay certain bills of needy persons. Information concerning eligibility for these various resources is usually obtainable from county welfare departments.

State resources assist patients in getting hospital service through the state mental hospital system, state tuberculosis hospitals, and oc-

casional general hospitals operated by state governments, such as the charity hospitals of Louisiana. In some states, state monies are available from the department of welfare through the county welfare departments for certain types of needy persons. State monies are also available through the department of education to assist the retarded in special classes of the school system. Often a state operates institutions for the blind and the deaf, some of whom may have a mental disorder but remain in the institution. Some federal laws exclude mental patients; these laws should be changed.

What do mental hospitals cost the taxpayer and the nation as a whole?

The amount of money spent on mental health by the states varies in terms of the total amount of the budgets, in terms of per capita spending, and in relation to the income of the state. The cost is actually much higher than most persons realize. The national cost for mentally ill persons, including the indirect costs of loss of jobs and crippling of family resources, is estimated at \$3 billion a year. It is believed that adequate early treatment, even though more expensive, would accomplish more than is now produced under present admissions and treatment, with a total saving in the long run.

In addition to the financial cost, mental disorders are the most serious causes of long-term suffering, family hardships, and dissolution of family resources. For these reasons mental illness is our major national problem.

How many kinds of people work in hospitals? Why are so many needed?

Large mental hospitals are like small towns. A group of one to ten thousand patients will have approximately one-fourth to one-half as many persons employed on the grounds. With their varied needs for housing, sanitation, food supply, fire protection, upkeep of roads and grounds, life is similar to that of a small town. The superintendent of the hospital is somewhat like the town mayor except that he has more direct authority.

A large mental hospital may have as many as thirty or more separate groups of specially trained people. Psychologists will do testing, clinical psychology, research and social psychology. Social workers do casework, group work, and individual interviewing. Registered nurses work as teachers, ward supervisors, and handle upper administrative posts as well as bedside nursing. Rehabilitation personnel such as oc-

cupational therapists, and recreation personnel, laboratory technicians, X-ray technicians, etc., are needed. Other personnel requiring special experience are librarians, dieticians, cooks, and food assistants. On the business side are secretarial workers, accountants, maintenance personnel, painters, carpenters, elevator operators, laundry workers. All these people are necessary because of the varied medical and living needs of the patients. (See *Careers in Mental Health*)

What can be said for the level of staffing in public and private hospitals?

In private hospitals the ratio of employees to patients is usually much higher than in public ones, often with as many as two employees per patient. The national average for public hospitals is approximately one employee for every three patients. Some of the states more advanced in mental health programs have one employee for every two patients. Until recently, employment in public mental hospitals has been given very low social and professional approval. As a rule, public hospitals are likely to have vacancies because their staff salaries are low and the number of physicians made available through their appropriations is limited. Frequently there is insufficient staff to carry out even a very limited level of service. In most states this level of service is slowly improving. A certain number of professional people have entered state hospital service for the challenge or the security it offers. However, the great majority enter with high aspirations for service to patients; and the public hospitals of the United States can proudly boast about their large numbers of expertly trained professional people. Unfortunately, these numbers are not as great as one might hope. Appropriations ought to permit higher salaries and better working conditions so that the number of well-qualified professionals can be increased.

What are the current trends in the broad field of mental hospitals? What may future patients look forward to?

Generally speaking, mental hospitals, both private and public, are now more closely associated with the general medical profession. It has been recognized that the medical and surgical work in mental hospitals is on a par with that done elsewhere. Psychiatry has gained recognition as larger numbers of fully trained and brilliant young men and women enter the field and participate in the work of mental hospitals.

Intensive treatment services are becoming increasingly available to patients in public hospitals; patients who have been in the hospital for years are getting attention, particularly rehabilitation services. The aftercare program for patients leaving mental hospitals has greatly improved and increased.

As public hospitals have improved, not only has treatment improved, but recognized and approved training courses for professional groups, particularly in psychiatry, have multiplied, and research is beginning to be carried out in many hospitals.

Most of the larger hospitals are operating in smaller units, and notable experiments are being carried out in various ways of grouping patients. Hospitals are, in a sense, moving into the community as they make their staffs available outside the hospital grounds, operate clinics on the grounds and in the nearby towns, circulate their residents in training into nearby communities, and utilize their staffs in follow-up services of patients even at distant points.

There is a movement in the direction of expanded use of federal funds for mental patients in treatment services. This has been done by assisting patients with economic needs through various welfare funds matched in various ways by state and county funds. Cooperative ventures between state and county governmental units is shown in the legislation of recent years in New York, California, and other states. The ventures are called state-local programs and they are operated by the local government and assisted by state funds with up to 50 per cent or more of the cost. This trend is likely to spread throughout the nation.

Another important trend is the effort to increase responsibility and financing from the private sector of American society; to enlarge the opportunities for the establishment of new private licensed institutions for the mentally ill and the retarded, and to explore the possibility of the state's farming out its patients to such private institutions. Such a trend is likely since the general ability of citizens to pay bills to private physicians and private institutions has improved with increased levels of living standards and of pensions and retirement benefits, social security, and private hospitalization insurance plans.

Future patients may look forward to the availability of treatment at earlier stages of illness than heretofore, and in or near their homes, with much less need for hospitalization, and with maintenance of their community ties. We can expect a vast improvement in primary preventive resources and strengthening of the citizenry as a whole in terms of being

better prepared to meet the stresses and exigencies inherent in a complex civilization. Soon there will probably be more services for the retarded, for children, and for the aged. In general, the future is hopeful but these hopes can only be realized through the continued efforts of all groups of people who assume responsibility to assist, through private enterprise and taxation, in providing the treatment and rehabilitative resources which the citizens need. In the near future, non-residential facilities like day treatment centers will be the most common community resource for all types of patients in the early stages of illness.

MENTAL ILLNESS AND HEALTH INSURANCE

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Do health insurance plans in the United States differentiate between mental and other types of illness?

In general, yes. Many health insurance plans exclude benefits for mental illness or provide less coverage for mental illness than for other types of illness. Some plans cover psychiatric conditions treated in general hospitals but not those treated in public or private mental institutions. Such restrictions create an obvious problem for the public in that insurance protection against the cost of care for mental illness either is not available or is meager in extent. Psychiatrists and mental hospitals are affected in that their services, not being paid for under insurance, are less available to the public. General hospitals are less willing to develop psychiatric units than they would be if patients in such units were covered through insurance.

There are deep-seated reasons—some more valid than others—for this differentiation by insurance plans. However, coverage of mental illness is becoming more extensive than it used to be. To understand the situation more fully, one must consider the practices of each different type of insuring organization.

What are the practices of the Blue Cross plans?

On the whole, Blue Cross plans provide distinctly smaller benefits for mental illness than for other types of conditions. Current practices, which vary greatly from plan to plan, are summarized in the following table.

For mental illness cases in general hospitals, 14 of the 78 plans in the United States provide no coverage under their most comprehensive contracts or riders, 36 provide some coverage but less than 31 days, 17 cover between 31 and 120 days, and 11 cover more than 120 days. Six plans specify that the maximum number of days allowed is the maximum during the life of the patient. Only 20 plans provide the same

DAYS OF HOSPITAL CARE AT FULL BENEFITS PROVIDED BY BLUE CROSS PLANS FOR GENERAL AND MENTAL ILLNESS UNDER THEIR MOST COMPREHENSIVE CONTRACTS

	FOR MENTAL ILLNESS IN			
	<i>For General Illness</i>	<i>General Hospitals*</i>	<i>Private Mental Hospitals</i>	<i>Public Mental Hospitals</i>
No Coverage	—	14	35	48
1-10 days	—	2	2	2
11-20	—	4	2	3
21-30	2	30	24	15
31-60	1	2	4	3
61-90	15	7	6	5
91-120	34	8	2	1
121-180	4	2	0	0
181-365	10	1	0	0
366-700	1	2	1	1
Over 700	11	6	2	0
Total	78	78	78	78

* In 6 plans the indicated number of days is the total provided during the life of the patient or during the life of the contract, and in 10 other plans the indicated number of days is the total provided in a year.

Source: Compiled by the author from data in the *Blue Cross Guide*, January 1, 1961, Blue Cross Association.

benefits in general hospitals for mental illness as for other types of illness.

In private mental hospitals, 35 plans under their most comprehensive contracts provide no coverage, 28 provide some coverage but less than 31 days, 12 cover between 31 and 120 days, and 3 cover more than 120 days. In public mental hospitals, 48 plans provide no coverage, 20 cover up to 30 days, and 10 cover more than 30 days.

Many plans, in addition to their most comprehensive contracts, offer contracts with lesser benefits. Although no statistics are available, it can be assumed that in most plans the majority of subscribers are entitled to considerably less extensive benefits than those indicated here.

Alcoholism and drug addiction may be considered as special types of mental illness. Approximately 68 per cent of the plans cover these conditions in general hospitals, while the remainder do not.

Has Blue Cross coverage of mental illness improved over the years?

Yes. For example, in 1945 more than half of all Blue Cross plans excluded all coverage of mental illness, even in general hospitals; only 5 out of 81 plans provided benefits in general hospitals for as long as 31 days; and virtually none provided any benefits in private or public mental hospitals. In 1958 the largest Blue Cross plan—New York City's

Associated Hospital Service—provided benefits for mental illness only in cases where patients received shock therapy or surgery. In 1961 this plan offered contracts covering mental illness for 21 full-benefit days and 9 discount days during any 12-month period in a nongovernmental general hospital.

What are the practices of the Blue Shield plans?

Of the 69 Blue Shield plans in the United States, 50 provide some benefits for mental and nervous conditions, and 20 of these provide the same in-hospital medical benefits for mental as for other covered conditions. Although care for mental and nervous conditions is usually covered only if the Blue Shield member is a bed patient in a general hospital, a few plans cover services in other institutions as well. In addition, a few plans cover shock therapy in doctors' offices or hospital outpatient departments.

Do Blue Shield plans offer more coverage of mental conditions than formerly?

Yes. In 1957, for example, 67 per cent of the Blue Shield plans offered some coverage of mental conditions; in 1961 the proportion was 73 per cent.

What are the practices of insurance companies?

Under their basic hospitalization, surgical, and medical policies offered to groups, insurance companies almost universally provide the same benefits for mental as for general illness, regardless of whether the patient is in a general or a mental hospital. Under policies providing allowances against the cost of physicians' services in the office and at home (e.g., \$4.00 for an office visit and \$6.00 for a home call up to a maximum of, say, 30 calls per illness), most companies offer the same benefits whatever the type of illness or field of practice of the physician.

Under their basic policies sold to individuals, most companies follow the same practices. Some, however, exclude care for mental illness or in mental hospitals.

When "major medical" or "comprehensive medical" policies (policies that meet 75 or 80 per cent of the expense of covered illness, over and above a deductible paid by the insured, and up to a specified limit, e.g., \$5,000 or \$10,000, in any one illness or year) first became popular, the companies usually provided the same benefits for mental as for

other conditions. They found, however, that a considerable proportion of claim costs was coming from mental conditions—cases in which the patient visited a psychiatrist two or three times a week over a year or two or three, at \$25.00 to \$50.00 a visit. Often the patients receiving this intensive care—mainly psychoanalysis—were not disabled but continued at their usual work.

The insurance companies and, more important, the employers buying such policies for their employees did not think it appropriate to pay out such large sums in cases where there was no disability, care was highly elective, and abuse was possible. As a result, quite generally, the insurance companies reduced the benefits provided for psychiatric care. The current practice is to pay only 50 per cent, instead of 75 or 80 per cent, of the expense of psychiatric care, or to cover such expense only up to a specified limit, lower than for general illness. Full benefits are generally payable, though, if the insured is in a hospital.

What do other health insurance plans provide?

“Other” plans are those sponsored by community or consumer groups, employers, employee groups or jointly managed welfare funds, and by private group medical clinics. These plans have a total enrollment of about 6,000,000 members, half of whom are in about ten of the larger plans.

The United Mine Workers' Welfare and Retirement Fund will pay for hospital and physicians' care in mental illness cases in which prospects for recovery or improvement are favorable after short-term treatment. The Health Insurance Plan of Greater New York (H.I.P.), which provides physicians' services through organized medical groups, excludes care in mental conditions after diagnosis.

Another plan in New York City, Group Health Insurance, Inc., covers physicians' services on a free choice, fee-for-service basis. With the aid of a Public Health Service grant, 1959–1961, it experimented with limited coverage of psychiatric care. The plan agreed to pay for up to 30 days of care in a hospital; for up to 15 visits for individual psychotherapy, the plan paying \$15.00 and the patient \$5.00 per 45-minute visit; and for a limited number of group therapy sessions, the plan paying \$3.00 and the member \$1.00 per 45-minute session. Claim costs for these benefits amounted to approximately \$1.00 per enrollee per year. The plan is now offering its subscribers limited psychiatric care benefits patterned after those in the experiment.

The Kaiser Foundation Health plans in California and Oregon cover care for mental illness up to, but not beyond, diagnosis. However, psychiatric services in the doctor's office are available at comparatively low charges per visit, and the plan is experimenting with a number of enrolled groups on limited prepaid coverage for psychiatric care.

The St. Louis Labor Health Institute employs two or three staff psychiatrists who provide short-term care to insured persons. It has found this arrangement to be relatively inexpensive and very valuable.

What are the reasons for the fact that many plans provide lesser coverage for mental illness?

Most Blue Cross plans were started or sponsored by the general hospitals of particular cities or states. The plans were designed both to help the public pay hospital bills and to improve the financial situation of the hospitals by reducing the burden of charity care. Since the programs were chiefly concerned with general hospitals, they naturally tended to exclude care in mental and tuberculosis hospitals.

During 1933-1940, when most of these plans were established, there was very little care of psychiatric conditions, at least as so designated, in general hospitals. But as more and more general hospitals have come to admit psychiatric cases for diagnosis and short-term care, pressure to provide benefits for such patients has developed.

Other factors come into play when care is provided in private or public mental hospitals. One reason for the continued exclusion of care in private mental hospitals has been doubt as to the standards of service in some of them. In 1960, for example, only 59 of 175 private (i.e., nonpublic) psychiatric hospitals were accredited by the Joint Commission on Accreditation of Hospitals.

As for the public mental hospitals, the main factor has been that the great majority of their patients pay little, if anything. In 1960 revenues from patients in public mental hospitals amounted to only 13 per cent of total operating expenses. Blue Cross plans have been reluctant to pay for services their members might obtain free of charge. As the number of patients (covered by insurance that would pay something toward the cost of their care) has increased, public mental hospitals have given more attention to collecting fees from patients. But the Blue Cross plans, faced with the problem of mounting hospital costs in general, will remain reluctant to cover mental illness in public hospitals unless these institutions make rigorous efforts to collect fees from all who can pay.

Coverage of service in public mental hospitals raises many important questions: Should care in such hospitals be free to all patients? If some patients are charged, should not patients without insurance be charged on the same basis as those with insurance? Is it sound public policy that the cost of long-term hospital care for mental illness, now largely financed through taxation, should be transferred to private health insurance? What effect would such transfer have on the cost of private health insurance and on the ability of the public to buy it? Does the exclusion of public hospitals reinforce other factors that separate these hospitals from the mainstream of modern medicine—a situation that most authorities deplore?

Although the length of stay of patients in public mental hospitals has been greatly reduced, the stay is still very long. The cost to private health insurance plans of paying for, say, the first 60 days of care in public mental hospitals would not be great—probably 2 or 3 per cent of premiums. However, if care in public mental hospitals were to be covered on the same basis as other conditions, the increased cost would be significant for those plans that now provide benefits in general illness for as long as 365 or 730 days.

What would it cost health insurance plans to cover hospital care of mental illness?

Blue Cross plans that cover mental illness in general hospitals have found that the cost is small—not more than 1 or 2 per cent of premiums. In 1959 the writer calculated for New York State what it would cost Blue Cross to provide full benefits for care of mental illness in general hospitals and the first 60 days per admission to all private and public mental hospitals. He found that the added cost would be approximately 5 per cent of premiums.

Is it feasible to cover psychiatric services in the doctor's office?

Obviously, coverage of psychiatric care in the doctor's office can develop only as a part of insurance that covers medical services in the office and home for illness in general. Although a growing number of plans offer at least partial coverage of physicians' home and office services, very few Blue Shield plans do so, and there is as yet no widespread agreement in this country that such coverage is desirable or feasible.

Yet the need for insurance coverage of psychiatric care in the office is great, since the cost of any appreciable number of psychiatric con-

sultations, at \$25.00 to \$50.00 per session, is prohibitive for persons of low or modest circumstances. Psychiatric care is a fit subject for insurance in that the incidence of need is relatively low, and the cost per case is relatively high. Militating against coverage, on the other hand, are the facts that the condition or illness requiring care is seldom well defined, care is highly elective, the termination of need is indefinite, and the possibilities for abuse under fee-for-service arrangements are considerable. Under the circumstances, insurers are likely to hedge against the possibility of losses by placing limits on the number of visits or services paid for.

There would appear to be fewer problems in insurance coverage of psychiatric illness under group salaried practice than under practice on a fee-for-service basis. A plan that provides service through a salaried staff (e.g., the St. Louis Labor Health Institute) can determine what psychiatric service it wishes to give and can employ a certain number of psychiatrists. These physicians, by rationing their services, can try to meet the more urgent psychiatric needs of persons in the insured group. A plan on a fee-for-service basis can do this only by setting overall limits on the number of visits to be covered for any individual patient.

What about coverage of mental illness under foreign health insurance programs?

The British National Health Service makes no distinction between mental illness and other types of illness. All types of care are financed in the same way, mainly from general revenues, and patients are entitled to all types of services. The writer is not familiar with the situation under other European programs.

In Canada, under the national hospital insurance program, the federal government meets half the cost of the provincial programs of hospital insurance but does not share in the cost of care in mental or tuberculosis hospitals. The programs in only two of the ten provinces include care provided in mental hospitals. The major reasons why the federal government decided not to share in the cost of mental or tuberculosis hospitals were that in all the provinces both types of hospitals are now financed almost totally by tax funds, and care is generally available without cost to the patient. Sharing in the operating costs of mental hospitals would have increased the cost of the program to the federal government and would not, at least initially, have resulted in more or better care. The net effect in the beginning, at any rate, would have been simply to relieve the provincial governments of half

their present expenditures for this type of care. Persons who do not agree with the federal government's policy in this respect believe that federal aid would enable the provinces to improve standards of care in mental hospitals—a development as greatly needed in Canada as in the United States.

What about care of mental illness under proposals for governmental health insurance in the United States?

Under the Kennedy Administration proposal for medical care of the aged through Social Security (the King-Anderson Bill, H.R. 4222—Eighty-seventh Congress), aged persons eligible for Social Security benefits would be entitled to care in general hospitals and nursing homes for stipulated numbers of days, irrespective of condition, but care would not be provided in mental or tuberculosis hospitals. One may surmise that the reasoning was that coverage of care in public mental hospitals would increase the cost of the proposed program to the federal government and would make very little difference, at least at the outset, in the care available to aged persons.

MENTAL MECHANISMS

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What is a mental mechanism?

A mental mechanism is a technique of adjustment, operating unconsciously, used by the ego (the adaptive or executive part of the personality) to maintain a state of mind free from overwhelming tension and anxiety caused by unconscious conflicts that seem intolerable and unacceptable.

The purpose of a mental mechanism is to render the individual relatively comfortable mentally, to gratify some of his emotional needs, to pacify the warring factions in his unconscious, thus minimizing or eliminating the tensions and anxieties occasioned by unacceptable wishes and desires that must be kept submerged, and also to ease the pressures of the external world which threaten to overwhelm the individual.

What is a defense mechanism?

Defense mechanism, more completely called an "ego defense mechanism," is an interchangeable term for mental mechanism. It is so called because the ego defends itself against unconscious conflicts by using many types of techniques in order to minimize or dispel the anxiety caused by such conflicts. This concept of the ego defense mechanisms was first described by Sigmund Freud in 1894 in one of his papers, *The Defense Neuro-psychoses*.

What is a mental dynamism?

This is another name for mental mechanism or ego defense mechanism. This term emphasizes the dynamic or the active processes that take place in *unconscious* mental functioning as contrasted with the static, limited awareness of the *conscious* self. In other words, to make a finer distinction, we may say that the term "mental mechanism" is all-

inclusive, covering many processes, whereas a "defense mechanism" is merely one process in this category, and mental dynamism is the force behind all.

What causes a mental mechanism?

In order to explain the cause of a mental mechanism, we must briefly elaborate on the various parts of the psychic apparatus and their integrative functions. For descriptive purposes we may say that the mind is divided into two parts—a conscious part and an unconscious part. The unconscious constitutes the greatest portion of the mind, perhaps seven-eighths of the total, just as the submerged part of an iceberg is about seven-eighths of the total mass.

The unconscious can be considered as a sort of storehouse. A storehouse for what? First, in the unconscious, is the *id*. This is simply a name that is applied to the primitive, archaic, lawless, aggressive, and biological impulses, wishes, and desires with which every human being is born. Because we are living in a civilized society, these primitive and lawless tendencies must be controlled. Therefore, another structure is formed in the unconscious. This structure, called the *superego* or the inner censor, develops as a result of our identification with our parents or parent-substitutes and of our introjection (taking a loved or hated object within oneself symbolically) of them into our unconscious. The prohibitions, admonitions, restrictions, rewards, and obligations issuing from these authorities are all introjected and act as a sort of inner policeman curbing and checking the *id* impulses, which are constantly seeking expression.

Another part of the personality is partially unconscious but mainly conscious. This is the *ego*, which is in contact with the forces in the unconscious as well as in contact with the outside world (called reality). The *ego* evaluates and tests reality, and acts as the intermediary between the inner and outer world. It maintains harmony between the *id* impulses and the demands of the civilized society in which we live. The *ego*'s function is to mediate between the uncontrolled demands of the *id* and the restrictive, forbidding influences of the *superego*. If the *ego* is able to permit some satisfactions of instinctual drives without rousing the *superego* to fierce denial of these needs, and if the ethical and civilized requirements of reality are satisfied, then the person is normally integrated, with peace of mind.

If, however, there is a conflict between the *id* and *superego*, producing tension and anxiety that quickly comes to the attention of the *ego*,

then the formation of a mental mechanism begins. Because tension and anxiety are very unpleasant feelings, the ego, to reduce or eliminate them, makes use of certain techniques (mechanisms), which it has been using since childhood. Usually more than one mechanism occurs at the same time in an individual.

What are the most common mental mechanisms?

The most common mental mechanisms are sublimation, rationalization, displacement, repression, resistance, conversion, dissociation, reaction formation, denial, projection, introjection, symbolization, condensation, identification, idealization, isolation, undoing, regression, incorporation, and compensation.

What are the characteristics of each of these mental mechanisms?

Sublimation is the only defense mechanism which always falls within the limits of normality. Here primitive, unacceptable id impulses are changed into socially acceptable activities and permitted freedom to flow into consciousness without any anxiety. For example, the child who is markedly exhibitionistic and has no shame in exposing his genital organs may in adult life become an outstanding actor, exhibiting himself in this socially acceptable fashion; or a child who is hostile, aggressive, destructive, and sadistic to animals may in adult life become an outstanding prizefighter or a successful surgeon.

Rationalization is a term used to explain a mechanism in which behavior or attitudes prompted by unrecognized motives are explained away by excuses or reasoning favorable to the individual. It is self-deception, in which the ego defends itself intensely against the painful truth. This mechanism is used very commonly by everyone occasionally, but if utilized excessively, it may be considered pathological. For example, a student who feels fairly well prepared for an examination on the following day, but knows he should study nevertheless, wants to see a certain film at the neighboring movie. Were he simply to go to the movie and not study, he would feel guilty. He then rationalizes that he would be better off by relaxing instead of cramming before an examination; then why not relax at the movie? He is, therefore, able to attend the movie and enjoy it without guilt.

Displacement is an anxiety-reducing device, operating unconsciously, whereby an emotion originally attached to a certain person, object, or situation is displaced or transferred, and attached to another person,

object, or situation. The emotion is usually transferred to an external and relatively harmless object, and the original focus or source remains in the unconscious. This is a mechanism frequently used in the production of phobias (morbid, unrealistic fears). For example, a person has a morbid fear of dogs. In his unconscious, there are hostile feelings toward his father, with fear of retaliation by the father. Inasmuch as living with his father is a constant source of anxiety, the person displaces the fear of the father onto a dog, and his symptom becomes a morbid fear of all dogs. He can now live comfortably with his father.

Repression is an ego defense mechanism against unacceptable impulses, memories, and drives that cannot be controlled by the ego. These elements are excluded from painful conscious awareness by being pushed down into the unconscious. This is the mechanism that produces a mass blotting-out of most of the events and memories of the first five or six years of life. A person may have *circumscribed* amnesia in which events or circumstances covering a certain period of time are completely forgotten (repressed).

Resistance is an anxiety-attenuating mechanism that prevents repressed (unconscious) material from breaking through into awareness. By this process, there develops a deep-seated opposition to the conscious acceptance of memories and insights (recognition and understanding). For example, when certain anxiety-provoking material threatens to break through into consciousness, a patient under psychoanalytic therapy will begin to come late to appointments, will become sick and miss several sessions, will tend to be silent during the analytic session. All this behavior represents resistance.

Conversion occurs when a psychic conflict is converted into a physical symptom. The mental conflict is caused by repressed ideas and wishes which, prevented from finding an outlet along normal conscious pathways, are converted or transposed into bodily channels and express themselves as physical symptoms. These have a symbolic relationship to the unconscious conflict; for example, a person with unconscious hostile feelings toward his mother wants to strike her, but since this would be entirely unacceptable, the person converts this disturbing emotional problem into a paralysis of the right upper extremity. Similarly, there may be symptoms—such as blindness, deafness, loss of voice, anesthesia, paralysis, tremors—which have no organic basis and represent conversions of mental conflicts into symbolic and disguised expressions. The physical symptom represents a self-punitive gesture that

eliminates anxiety, and very frequently the individual is not at all disturbed by his severe and often disabling condition.

Dissociation takes place when a portion of the personality, which is causing emotional stress, is separated from the normal psychic apparatus and functions independently. In such an individual the repressed elements in his psychic life are incompatible with the rest of his personality, but they may defy the powers of repression, break into consciousness, become dissociated from the primary personality, and exist as a secondary personality, often showing characteristics entirely opposing the usual personality patterns of the person. This was portrayed in a motion picture called *The Three Faces of Eve*. The process of dissociation causes such conditions as sleepwalking, multiple personalities, fugue states (characterized by amnesia and physical running away), and automatic writing.

Reaction formation is a defense mechanism in which a rigid and inflexible character trait or attitude is consciously presented in order to cover up an unconscious, painful or undesirable trait, usually of the opposite type. For example, an extremely agreeable, affable, anxious-to-please individual who never shows any irritability, disagreement, or hostility, is usually presenting overdetermined features to cover up or defend himself against the anxiety of underlying hostility and rage with feelings of anger, hate, and resentment. This mechanism is often found in obsessive-compulsive individuals who set up certain ritualistic behavior, such as being certain when walking that they are not crushing an insect, fly, or other tiny creature. Usually this ritualistic and meaningless behavior is an overreaction in an effort to control—and to keep unconscious—sadistic and hostile urges.

Denial is an unconscious mental mechanism whereby actual and obvious reality factors are treated by the individual as if they did not exist. Unpleasant, intolerable facts, wishes, thoughts, and actions are disowned by an unconscious process of elimination. (The term *denial* here is not used in the same sense as conscious and deliberate lying.) An example of denial would occur in the case of a patient with an amputated leg who develops a phantom limb in which he feels sensation, movement, and pain. He denies unconsciously the fact that he has no leg.

Projection is an intrapsychic mechanism in which one's own objectionable desires, attitudes, character traits, and motives are turned outward and attributed to or projected upon others. These painful or objectionable ideas are felt by the individual as belonging outside himself,

since he turns them outward upon persons or things in his environment. The projected material may be said to be a mirror of the projector's own unconscious. A good example of this process is the person who unconsciously feels insecurity, hostility, and discomfort with people in his surroundings; he projects these feelings outward and says that nobody likes him and nobody wants to have anything to do with him, and, therefore, he cannot make friends.

Introjection is a mechanism by which a person incorporates and re-erects within his unconscious the image of another person, with all the emotions and sentiments surrounding this other person. Introjection may be used to identify with or be like the incorporated object, or to destroy it. Introjection is the opposite of projection. For example, a person's parents and the parents' admonitions, warnings, and prohibitions may be introjected by that person and form the nucleus for his superego. This is a positive aspect of introjection if the parent relationship is normal, so that a healthy superego develops. Conversely, a patient who is depressed introjects a previously loved person whom he now hates, and he turns in upon himself all the recriminations and accusations which he unconsciously felt toward this previously loved one. Similarly, he may attempt to murder the "loved one" by committing suicide.

Symbolization is a mechanism that utilizes one idea or object to represent some other idea or object. Concomitantly, there is a displacement of emotional values from the original idea or object to the symbol, and thus the symbol becomes heavily charged with meaning or value. Symbolization is used because the original repressed material cannot find conscious expression without destructive anxiety; therefore, substitutes that are often irrelevant and apparently unconnected are chosen and expressed consciously. A normal manifestation would be the following: A young man describes to his mother, with loathing and excessive intensity, the character of a girl in a book he is reading, and says that she reminds him of an obnoxious girl he had met whose wild enthusiasms, bubbling ideas, and vague grasp of facts set his teeth on edge. Actually, all these qualities are those he associates with his mother, against whom he is rebelling. The girl becomes the symbol through whom he could vent his emotion fully. Symbolization occurs actively in dreams, representing expressions of the unconscious. In schizophrenia, a psychotic disturbance, symbolization occurs in the form of hallucinations.

Condensation is the mechanism by which one idea is made to contain

all the emotion associated with a group of ideas. In other words, many ideas or allied experiences may be compressed into a single thought or word. For example, in the method of free association used in psychoanalysis, the individual may remember a certain word, which then releases a flood of associated memories, events, and emotions.

Identification occurs when an individual unconsciously transfers or attaches to himself certain elements or qualities associated with the ego or personality of someone else. It derives from the wish to be like someone else. Identification plays a significant role in the healthy growth of ego and contributes a great deal in the formation of the superego. Children identify with parents and parent-substitutes in the process of growing up. Ambitious people identify with those who have attained their goals. Employees achieve self-importance through identification with distinguished employers. All these examples represent a *positive* form of identification.

In another type of identification, the image of one person is unconsciously identified with that of another, and all the emotion originally attached to the one individual is attached to the other. Often these emotions contain hostile and negative feelings. This is frequently the explanation for violent and senseless dislike for people we hardly know. Unconsciously we have identified them with someone who once aroused similar emotions. For example, a "cop-hater" may identify all policemen with a cruel and tyrannical father. This is a *negative* identification.

Idealization is the mental mechanism whereby a marked overvaluation and overestimation of a loved object occurs. It is the origin of the phenomenon of love, which exalts and inflates the value of the person loved.

Isolation is an intrapsychic mechanism in which a separation of the memory and its emotion occurs, the emotion remaining unconscious while the memory is admitted to conscious awareness. This mechanism occurs often in obsessive-compulsive neurotics. Here a patient can describe an event that must have been endowed with tremendous emotion, and yet he is unable to relate any of the original feelings associated with the event. In other words, the memory is conscious, but the emotion remains unconscious (repressed). An example of this would be the man who is able to have sex relations only with women for whom he has no warm or real feelings, whereas with the woman he loves or for whom he has strong positive emotion, he never considers sexual

relations. For him, sex and emotion are two separate and distinct, isolated phenomena; they cannot express themselves simultaneously.

Undoing is a defense mechanism whereby an individual repeatedly thinks or does one thing in order symbolically to reverse or "undo" something else objectionable or unacceptable which was thought or done before, and which is now causing anxiety. The symbolic thought or act is used to neutralize anxiety. This mechanism occurs frequently in obsessive-compulsive neurosis. For example, a woman who washed her hands innumerable times a day, so that the skin was raw and bleeding, was manifesting a compulsive act of "undoing" to cover up an unconscious wish to harm her mother. This wish was unacceptable, "unclean"; to prove to herself and to the world in general that she was "clean and pure," she had to wash her hands repeatedly, thus symbolically purifying herself.

Regression is a mechanism of defense in which the ego gives up the advanced emotional level that it has achieved and returns to an earlier or more infantile level. This retreat may take place under conditions of severe emotional stress, when an individual is unable to cope with reality factors or internal pressures within himself. Although the process may occur very occasionally and transiently under normal circumstances, it is mainly a destructive maladaptive mechanism, usually found in schizophrenic diseases and in some neuroses. Examples: (1) *Normal*: A hard-working man develops a cold and "gives in" by staying in bed and being taken care of by his oversolicitous wife, not one day, but three or four days unnecessarily; he is regressing temporarily to the dependent level. (2) *Neurotic*: A family man with responsibilities that he cannot face because of anxiety regresses to the infantile oral phase and begins drinking alcohol excessively for long periods, like a baby taking milk from the bottle or the breast. (3) *Psychotic*: An individual becomes mute, immobile, assumes the fetal position, will not eat and has to be tube-fed, and wets and soils himself. He regresses to the infantile level.

Incorporation: synonymous with introjection. *See Introjection.*

Compensation is a mechanism whereby the individual unconsciously attempts to defend himself against basic feelings of inferiority, in order to attain a sense of security and increased self-esteem. In a well-integrated individual the compensation may take the form of excessive strivings and greater efforts on a realistic level to achieve conspicuous success. For example, a person who suffers because he is or thinks he

is short, puny, and physically undistinguished may, by extraordinary and unremitting work and ambition, achieve distinction as a social, business, or scientific leader. Another individual with the same mental image of himself, whether it be fancied or real, may resort to overcompensation by wishful thinking, unrealistic fantasies, the development of undesirable and unpleasant character traits, and in extreme cases, by psychotic delusions, in order to neutralize or allay the underlying corroding and overwhelming anxiety. He may then attempt to change his concept of himself by unrealistic ideas of superiority, aggressive and hostile behavior, depreciation, and attempts at subjugation of others.

Do all individuals make use of mental mechanisms?

It is generally believed that all people make use of some mental mechanisms at one time or another. Most commonly utilized in facing the vicissitudes of life and living are sublimation, rationalization, and repression. However, almost any of the mental mechanisms may be used occasionally and transiently by everyone. If any of these mechanisms except sublimation are used consistently and for a prolonged period, however, symptom formation or defects in character structure may result.

Are some mental mechanisms more common in men than in women?

There are no statistical reports to indicate that any mental mechanism is more prevalent in one sex than in the other. However, in a small number of patients (that I have seen) with dissociative reactions where the ego defense mechanism was dissociation, the majority of patients were female.

Does the extreme use of a mental mechanism produce symptoms of emotional illness?

The constant and extreme use of a mental mechanism in order to conquer overwhelming anxiety indicates that the mental mechanism has become less efficient and less rational in doing its job of successfully warding off anxiety. As a result of such extreme use of a mental mechanism or combination of mental mechanisms, symptoms of neurotic or psychotic disturbance may occur, or there may be development of certain personality or character traits which could disturb interpersonal or social relationships.

What causes one to lean on certain mechanisms?

The individual's emotional makeup and personality requirements determine the original choice of one or more defense mechanisms. So long as these are successful in allaying anxiety, they are maintained and they become a part of the person's total life pattern, influencing his behavior, his thinking, his emotional reactions, and his entire character structure.

Are mental mechanisms usually accompanied by physical characteristics?

Mental mechanisms do not usually produce physical symptoms, but there is one mechanism (conversion) that produces only physical symptoms of the most varied type and of greater or lesser severity and incapacitation, all without any organic lesions to explain the physical symptoms. The mental mechanism of introjection, which is instrumental in the development of depression, may produce varied physical symptoms, such as aches and pains, poor appetite, insomnia, loss of weight, etc.

How can mental mechanisms be helpful to the individual? How can they be harmful?

Mental mechanisms can be helpful to the individual if, by enabling him to handle anxiety, they make it possible for him to be productive, constructive, creative, successful in his social and work relationships, and capable of coping with the psychophysiologic epochs of life: puberty, marriage, childbirth, menopause, and old age.

Mental mechanisms can be harmful by producing character and personality traits that disturb social and personal relationships, or by producing actual symptoms of psychoses and neuroses.

How are mental mechanisms recognized by a therapist? How are they treated? What is the success of such treatment? On what does this depend?

Mental mechanisms are recognized by a psychotherapist or a psychoanalyst by virtue of the fact that the patient comes to him for treatment. This means that the habitual use of mental mechanisms has failed to control anxiety, so that the patient is manifesting symptoms. If a patient presents a gross physical symptom without organic findings, the therapist recognizes the mechanism of conversion. If the patient shows symptoms of obsessive-compulsive neurosis, the therapist can see the

mechanisms of reaction formation, undoing, and isolation. If there are phobic symptoms, the therapist will observe the mechanism of displacement. In states of multiple personalities, somnambulism, and amnesias, the therapist observes the mental mechanism of dissociation. In schizophrenic disorders, the processes of projection, denial, symbolization, condensation, and regression can be readily detected while treating the patient. In severe depressions, the therapist can observe the process of identification and introjection.

In the psychoanalytic treatment of a disturbance, the analyst can see clearly the process of repression, inasmuch as the repressed material can be obtained through free association and dream interpretation. Finally, in such analytic treatment one can observe the mechanism of resistance by which the individual builds up obstructions in order to prevent the free emergence of repressed material. Resistance during treatment can be seen when the patient tends to remain silent, inarticulate, shows a tendency to blocking, embarrassment, and the development of unexplained anxiety. This may occur at a time when particularly painful repressed material is attempting expression through free association.

Mental mechanisms are not treated as isolated phenomena, but they are included in the total treatment plan of the patient, whether it be through psychotherapy or through psychoanalysis. Here, in addition to other therapeutic factors, the defense mechanism is analyzed and interpreted so that it stands out clearly as an operational unit in the development of symptom formation, and efforts are made to eliminate the morbid mechanism by substituting more acceptable and healthier mechanisms; for example, compensation for denial. In some instances where a mechanism should be strengthened in order to enhance the individual's capacity for adjustment, it is supported and encouraged.

With skilled therapists applying the proper form of psychotherapy or psychoanalysis to carefully selected patients, the results have been favorable.

Success in treatment depends upon the skill of the therapist, the motivation of the patient in seeking treatment, and the intensity of the desire to get well, as revealed in the capacity to become "engaged," in therapy.

What effect does treatment of a mental mechanism have on the patient's personality or problem?

Appropriate treatment can change a morbid character structure such as submissiveness, extreme shyness, marked meticulousness, over-

aggressiveness, intolerance, and other similar character defects, by revealing and making comprehensible to the person the manner in which he has built up such personality defects as protections against an awareness of early resentments, hostilities, and fears long buried in the unconscious. This would similarly apply to other emotional problems besetting a person.

THE MENTAL PATIENT

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Do most people suffering from a mental disorder have to go to a hospital?

No. It is no longer necessary for most of the mentally ill to go to a hospital. There are treatment centers, outpatient clinics, and doctors' offices where skilled persons can handle a great majority of the mental disorders including those considered to be the most serious.

For what reasons might hospitalization be considered for an emotionally disturbed individual?

It has recently been proved that the reasons why people enter mental hospitals are frequently something other than the mental illness. People may suddenly become acutely ill and cannot be cared for at home, or there may be no facilities or trained persons available. Many have been recognized as ill for some time but the various alternatives of treatment have delayed hospitalization. A patient's symptoms may become more overt or the patient may be recognized as being dangerous to himself or to others. The patient quite often was able to get along in his environment even though he was mentally ill, until a change in the family situation (e.g., the death of a parent) would cause a drastic change in his condition.

Does the patient himself ever feel that hospitalization is necessary?

The large number of voluntary patients presumably feel that hospitalization is necessary and they are willing to take the step. Some of them are under guardianship or parental authority, and the voluntary aspect is on the part of the guardian or the parent and not necessarily on the part of the patient. However, the patient who goes through the commitment process may find it a difficult ordeal and may not be convinced that he should go to a hospital. If a patient is too ill to know what is happening, it can only be the observer's conjecture about his willingness to be committed.

What are likely to be the problems a patient will have about being hospitalized?

The attitudes of a patient vary. He may have guilt reactions about being mentally ill or he may regard his illness as punishment. He may feel responsibility for leaving his family without help or money. The patient's anxieties and attitudes should be known to staff members of the hospital, whose policy should be that at least one person sees enough of that patient to become his confidant. This person and the general hospital program should be utilized to reassure the patient, to induce his cooperation, and to help him develop full confidence in the treatment process.

How is the patient introduced into the hospital setting?

In a good hospital every effort is made to make the patient as comfortable as possible from the moment he enters the front door. Occasionally when employees are curt and the patient arrives at an inconvenient time, this welcome is not as obvious as it should be. Various devices are used to help the patient get used to his new environment. For example, in many instances older patients or members of the nursing staff may meet the new patients and escort them about the hospital. They are usually shown to a room on arrival and, hopefully, they are attended to immediately. They may have to go through unpleasant experiences such as having their clothes removed and their valuables, including wedding rings, taken from them. This practice is being revised in many places and the clothes of the patient are returned as quickly as possible. Substitution of hospital garments is frequently done so that their clothing may be properly cleaned. In many hospitals patients are questioned about their physical needs: Are they hungry, are they comfortable, do they need immediate medication for pain? The patient is given an interview and informed about the hospital's plans for him, the privileges he may enjoy, such as communication and visiting, and the daily schedule the hospital has planned for him. Patients, generally, become adjusted and fairly content with the hospital as the days unfold.

What kind of life does the patient lead in a mental hospital?

His accommodations may consist of a bedroom with one, two, or four beds, or an alcove that contains eight to ten beds. However, the majority of public hospitals have large dormitory floors with fifty to

a hundred beds lined up in long rows. The beds are frequently so close together that space and fresh air are inadequate.

Patients may be herded together in large crowds with few opportunities for the niceties of life. Some wards have their own small dining rooms but cafeterias are the most common dining-room arrangement. In some newer hospitals, patients sit at small tables where they can eat and talk together. In wards where disturbed patients are likely to be dangerous, the use of knives and forks may be limited.

As in all hospitals, the eating hours are usually determined by the necessity of meeting the demands of the labor force rather than by the comfort of the patients. Breakfast is served about daylight, the noonday meal between 10:30 and 11:30 A.M., and the evening meal between 4:00 and 5:00 P.M. This timing leaves a long interval before the patient goes to sleep, and is remedied in most hospitals by an attempt to provide a snack at bedtime. Whenever food is cooked in huge quantities for large groups of people, it is difficult to serve it hot and attractively. It can become an intricate and difficult process, especially when there are other considerations, such as the patient who needs privacy, the patient who needs extra time to eat, and the patient who cannot feed himself. Patients are given medication if they have trouble sleeping, but usually the patients who are kept active during the day, sleep very well with a relatively small amount of drugs. Patients are taken outdoors as often as possible and get a moderate amount of exercise. Their daily program may include occupational therapy, or some group work and discussion activities, as well as seeing the doctor.

Recreation is furnished to a large proportion of the patients, but most of it is passive recreation such as watching television. Psychiatric technicians or attendants can be of great help in organizing recreational activities among the patients—a far cry from the old regime of attendants who watched and guarded rather than assisted the patient.

In the past, certain times were set for cleaning the wards, for bathing, for the women to mend and launder their clothes, for men to assist in cleaning. These were part of the day's schedule. Recently, an active treatment program finds the patients busy doing things designed to assist them in their recovery and in their return to society.

Social life is encouraged. Traditionally, patients were always separated: by sex, frequently by age-groups, and occasionally by the duration of their illness. In current experiments, new and old patients are placed together, particularly if they come from the same locality. Even age-groups are mixed on the theory that the younger stimulate the

older, and the older may assist the younger. It is common practice these days for men and women to eat in the same dining room, to attend the same evening entertainments, and to mix on the grounds.

Frequently, in private hospitals men and women live in rooms on the same halls and corridors as they would in a hotel. In general, life in the mental hospital is moving toward simulating life at home.

These statements have given a somewhat attractive picture of mental hospitals and it is true of many of them. However, even in the best hospitals, as many as half of the patients are still in the "rocking chair brigade"; they are clean, properly fed, decently clothed, but have nothing to do all day because of the shortage of personnel and a lack of a rehabilitation program. In many hospitals receiving low monetary appropriations, treatment programs are few, and many patients do not receive enough attention from the limited personnel to prevent their getting into trouble, becoming disturbed, restless, bored, and regressed.

Are patients separated in the mental hospital? If so, is this wise?

In the large public hospitals patients are classified in many different ways. New admissions are frequently placed in an "admission and treatment" unit, where they get intensive treatment by more concentrated groups of personnel than are available for the so-called continued-treatment wards. Similar patients are usually housed together in the same ward. For example, older persons, children, and disturbed patients are generally housed in separate units. Recently, these traditional procedures have been challenged and various new plans are being tried. It has been suggested that new patients may encourage older patients, that older patients may be helpful in orienting the new patients, and occasionally, older patients may be very effective with adolescents and children.

It is also believed that both the seriously disturbed and the less disturbed patients may mix with profit to each other, provided care is maintained in bringing them together.

What are the privileges and restrictions of patients in the mental hospital?

Until recently, in most mental hospitals all wards were locked. Patients were not permitted to move freely in and out of their wards and when they did leave the ward, they were escorted by a member of the nursing personnel. In general, all patients were treated as com-

pletely irresponsible persons who were unable to use their own judgment and likely to do damage to themselves and others.

Recently, the "open door" policy has been found useful with selected patients. The more freedom the patient is given, the faster he progresses.

Communication privileges have begun in many hospitals. Patients can now receive mail, and most hospitals allow the patient to send mail without censorship.

Visiting privileges are available in all hospitals. Some allow visitors all day and every day, others designate certain times. During the visiting hours, a ward physician or a top administrative officer is usually available to talk with relatives.

Patients who are progressing satisfactorily are encouraged to leave the grounds with relatives for shopping trips or for frequent weekend visits home. These periods are gradually stretched out until a patient is sent home on a trial visit. Most patients are released earlier than they used to be, and one or two successful trial visits usually result in the patient's being sent home on indefinite leave, particularly if the hospital has a follow-up service.

Do any patients have private rooms?

Yes, there are always a certain number of private rooms. Some are for those patients who are so disturbed that they must be alone. Occasionally, the up-to-date hospitals have rooms for one, two, or four patients. It is often considered a reward for a patient if he is allowed to have a room to himself. Since all human beings require a certain amount of privacy and quiet, it is a marvel that the patients do as well as they do in the large, crowded recreation spots and lounges that are attached to their sleeping quarters. Traditionally, the bed spaces or dormitories were locked during the day, so that patients could not go in and disturb the carefully made-up beds. The practice, however, is changing and in many places patients may retire during the day and lie on their beds for rest or quiet.

What are the civil rights of the patient?

In some states, upon admission to a mental hospital the patient automatically loses his civil rights, i.e., his right to vote, to sign a check, to handle property, etc. In other states, his civil rights are not taken away by the ordinary commitment process. In these cases, action to deprive the patient of his civil rights requires a separate judicial

process; when he leaves the hospital, in order to have his civil rights restored, the same process must be followed. All patients have the right of *habeas corpus* and many who feel they are held unjustly can obtain necessary legal services to deal with this situation. These cases are handled by the lower courts. The hospital officials and an attorney for the patient are invited to appear before a judge. On the basis of evidence, the judge makes the decision about the patient being allowed to leave the hospital.

Are any regular patients allowed to come and go from the hospital as they please?

Yes. Many patients have ground, town, or village privileges. After a patient has been in the hospital and his condition is well under control, he is permitted varying degrees of freedom.

Can the restrictions of a mental hospital have harmful effects on a patient?

Yes, they can. It is firmly believed that any physical restriction, such as the camisole or straitjacket, will usually arouse antagonism in a patient. If the general atmosphere of the hospital lacks warmth and interest, the effects on the patient may be disturbing. Under so-called "institutionalization," where patients are subject to a monotonous routine with little comfort, pleasure, or therapy, the patient may deteriorate rather than improve. The effects of poor custodial care are well known, but the modern trend in nearly every mental hospital is to utilize the atmosphere as a therapeutic tool and to select and train persons whose attitude is helpful to the patient.

Is the use of restraint common in the mental hospital?

Physical restraints have almost gone out of use. As the number of personnel has increased, other forms of control are used. Patients who are kept busy and not antagonized tend to be in less need of restraint. In addition, a substitute for physical restraint has been found in tranquilizers. Before the advent of the tranquilizer, patients were given large doses of bromides and barbituric acid derivatives. They were dulled in their perceptions so that they were quiet, drowsy, or even half asleep. This type of restraint is frowned upon because it renders the patient unable to utilize his faculties. Also, some of these gradually produce toxic reactions. Some bromides produced a peculiar reaction that made the patient appear to be even more disturbed than before.

Tranquilizers are not considered as chemical restraint, but are used as a method to quiet a patient. They do not, however, render him unable to utilize his faculties. They can help him to make better adjustments and to be more receptive to psychotherapy.

What determines the success or failure of treatment?

A very high percentage of patients are able to leave the hospital if that hospital has a reasonably good treatment program. Most patients on first admission are able to leave the hospital in three to six months, and 90 per cent within a year. It must be remembered that many things enter into a successful treatment program. These include the opportunity to treat a patient early in his illness, the ability to institute treatment processes as early as possible, and a broad program of therapeutic regimens and activities. Of great importance is the patient's relationship to his family. The frequency of their visits and the patient's visits to his home are encouraged. The attitude of the community to which he may return plays a large part in the efficiency of the hospital. It may be seen from these examples that the hospital operates in a complex way. It deals with a complex disorder and depends for its effectiveness on many factors, some of which are not under the hospital's control.

How does the size or location of the hospital affect the patient?

The hospital location seems to be of more importance than the size. If the patient has to go rather far from home, if he has little opportunity to be visited by his relatives or to go home on short visits, and if he thereby loses his contact with his home environment, that alone can be a serious deterrent to his treatment. Of course, if his hometown has no psychiatric facilities, the patient is still better off going to a hospital that is a distance from his home than to go to none at all. In general, it is better when the hospital is located near the patient's home. There has been a trend in this direction.

The larger the hospital, the less are the patient's chances to see the professional staff or the heads of the institution. The small hospital's "family kind of life" is gone. In large hospitals treatment tends to be rather impersonal and conducted through large groups, rather than through small groups or individually. The administration of a large hospital usually becomes less and less efficient as its size increases. It is claimed that large hospitals are less expensive to operate in terms of

day-to-day cost, but since the present-day large hospitals tend to keep patients longer than is necessary, the total cost of the patient's stay is greater, even though the daily cost is less. The trend, then, is toward smaller hospitals located near the homes of the patients. The size should be no larger than is necessary to serve the immediate population.

What types of psychiatric treatment are available in mental hospitals?

All types of psychiatric treatment are available in the mental hospital. Included among these are insulin, Metrazol, and electric shock treatments. Insulin treatment is regarded as valuable, but the number of trained personnel needed and other expenses involved in administering it, make the use of insulin almost prohibitive. In some cases, substitutes are often just as good and frequently better. These substitutes are electric shock treatment, modern tranquilizers, and antidepressant drugs.

The tranquilizers do not cure mental illness but rather enable the patient to live with his problem. The antidepressant drugs lift the mood of the patient to a normal level. Some treatment processes are used specifically for certain diseases. For example, penicillin is given for general paresis, vitamin therapies for pellagra, or electric shock for mania and depression.

Group psychotherapy is one of the main methods of modern treatment. This method permits patients to help each other by talking over their various problems.

The "therapeutic community" is a concept that is recently being carried out in mental hospitals. In this setting, the patients form an organization to work together, to institute a certain amount of self-government, to discuss each other's problems, and to have a hand in settling controversial subjects, including the amount of their freedom and how they may use their time. (See *The Therapeutic Community*)

May a patient's private physician continue to consult with him and have a voice in the treatment in the public mental hospital?

Most public hospitals do not permit a physician to have such control after the patient comes into the hospital, although there is now some consideration for this plan because of the shortage of physicians. In any case, the referring physician always has the privilege to consult the hospital physicians about his patient, and usually his suggestions and assistance are accepted.

What can the family do to help the patient?

When a person shows evidence of becoming mentally ill, the best attitude for the family would be to seek help rather than to expect the situation to pass or to explain it in terms of fatigue or some physical infirmity. Facing the reality of possible mental illness, seeking professional help early, and supporting the patient in facing this reality, help the patient far more than letting him keep his head in the sand and allowing precious time to go by. Occasionally decisions to ask for psychiatric assistance are bitterly resented by the mentally ill person, but someone in the family must accept the responsibility for doing what he considers wise, despite the hazard of being misunderstood.

A person with financial assets should be persuaded, if possible, to confide in a trusted individual, a member of the family or a lawyer, and place in him the power of attorney so that bills may be met after the person has been hospitalized. Occasionally, guardianship responsibility must be placed on some member of the family. This is done by judicial process through an attorney.

Hospitalization, treatment in a clinic, or private treatment, are some of the most sensible procedures. Unfortunately, many people still believe that being mentally ill or needing psychiatric treatment is the beginning of the end and all hope for the future is lost. Nothing could be further from the truth. With current processes, patients have an excellent chance of successful recovery.

The family must remember that mental illness may last longer than other illnesses so they should be financially prepared. Most insurance does not cover mental illness. Since mental illness is as likely to occur as any physical illness, families who are not financially able to cope with the expenses involved, should try to find an insurance that includes at least a part of the treatment of mental disorders.

During hospitalization the patient needs support and visits from his family. They should encourage him to carry out the doctor's orders. If families do not have confidence in the doctor, they should thoroughly investigate him; if they find that confidence is undeserved, they should change doctors or hospitals. Also the patient's place in the home must be kept open, because he is likely to return much sooner than expected. If the physical situation in the home was partially responsible for the illness of the patient, other arrangements should be made so that the problem will not be repeated when the patient returns. Preparations for the patient's return require careful examination of his needs. (See *The Family in Illness and Health*)

***What problems does the family face while the patient is hospitalized?
How do the family's attitudes affect the patient?***

If the patient was the wage earner or the homemaker of the family, it may be necessary for the family to obtain extra funds or assistance. Agencies and friends may be of help in such situations.

The family, too, may suffer from psychological reactions to the sickness of the patient. Family members may become depressed or obsessed with guilt feelings; they may need advice, assistance, and possibly even psychiatric treatment.

Families may also have to face the reality of prejudiced public attitudes and will have to decide whether or not they want to make known the fact that a family member has been hospitalized. In time, the public will learn to have the same objective attitude toward mental disorders as toward other illnesses. The family at this time has both the opportunity and the obligation to develop, for the benefit of the patient, and of all patients, the best possible interest and attitudes among their friends and acquaintances.

What can friends do to help a patient?

Friends can be of great help by giving the patient moral support, visiting him while he is in the hospital, and welcoming him when he returns home. They can supplement family aid by assisting him in his needs, helping him to find employment, encouraging him in his daily efforts, and above all, assisting him in becoming socially rehabilitated.

To be of real use, friends of the mentally ill, must be informed about the subject, must take a stand for tolerance about mental illness, and must induce others to do likewise.

When may a patient leave the hospital?

If a patient has entered the mental hospital voluntarily, he must, according to law, give a brief notice, usually seven or ten days, before he may leave. Some patients, such as alcoholics, are allowed to leave after a specified period of time, often three months, regardless of their condition. Most patients do not leave the hospital until medical judgment indicates that they have made sufficient progress to be allowed to discontinue their treatment in the hospital. Some patients are discharged under follow-up care; others receive a direct discharge that places them entirely on their own or with their families. In general, a patient who enters the hospital early in the course of his illness, may expect to leave the hospital within three months. A small percentage

of patients, however, do not respond to treatment and may have to stay in the hospital a year or even many years. Obviously, patients who can return to their own homes leave the hospital much sooner than those who cannot.

What preparations are useful before a patient leaves the hospital?

Usually someone has to assist in making arrangements with the family or with a foster home, or provide some other place for the patient to live. He may have been away some time and therefore has few friends, acquaintances, or business contacts. A certain number of persons can go back to their former occupation; others may be handicapped and need further training. In this case, rehabilitation personnel can be of great help. Generally, the important and necessary preparations are in the hands of the social service worker or social service department of the hospital. These persons are trained to handle the relationships of the patient to his family and his environment. Much assistance can be obtained from friends, legal authorities, and employment agencies. Some patients are able to go to a halfway house and stay there briefly until they become acclimated to social life, learn to stand on their own feet, find a job, and get back to work. But opportunities such as these are relatively few throughout the country.

What is the procedure before a patient is discharged?

Usually the hospital holds a staff conference to determine whether the patient is ready to leave the hospital. The superintendent makes the final decision. Occasionally, if there is a difference in opinion, a court proceeding is necessary.

What problems does a patient face after discharge?

The public usually looks upon the released patient with some suspicion. It questions whether he has recovered and whether he is still able to carry out his activities. He is vulnerable to the public's prejudices, fears, and ignorance about mental disorders. The opportunities for finding work after leaving a mental hospital are still limited, although some industries are more open-minded than they used to be.

Many job application forms, including, unfortunately, some civil service application blanks, specifically inquire whether a person has ever been in a mental hospital or has ever been mentally ill. Questions are not asked in the same context about other conditions such as heart

disease or tuberculosis, though they may be equally important as far as work is concerned.

Persons returning after a considerable stay in mental hospitals are like those who have been in the dark coming into sunshine. They are socially shy. They may have lost confidence in themselves, but this will be recovered slowly. Some have been away so long that they may not be aware of modern improvements and new ways of doing things.

If civil rights have been lost they cannot be recovered without due process of law and this often takes time. A patient who needs to continue psychiatric treatment may find it difficult to obtain this treatment in his hometown, or he may be unable to pay the fees of a clinic or to get private medical care. He may need to have tranquilizing drugs, without the money to pay for them.

What aftercare does a hospital furnish a discharged patient?

Some hospitals and hospital systems furnish practically nothing, but in many parts of the country aftercare is provided in several ways. In certain western states, the county welfare departments are notified of the patient's return to his home county. They have already assisted in obtaining information about the patient when he was first sent to the hospital, and hence he may be well known to them. Some hospital systems assign patients on convalescent leave to social workers who are stationed in various communities throughout the states. These social workers attend to the patient's environmental relationships, employment, general care, and medical care.

Patients on convalescent leave remain the responsibility of the state hospital, and as a rule are not formally and permanently discharged until they have been carefully checked after a certain period of time. Convalescent leave usually lasts for approximately one year. In some states, it automatically terminates at the end of a year, while in others, it ends with discharge but only when the patient's psychiatric condition permits, whether it be a few weeks, or several years.

Will the released patient need further psychiatric treatment?

Most patients leaving hospitals need further treatment and are released sooner if such treatment is available. Some need merely a friend or confidant; others need someone to assist them in major decisions; still others require an occasional person in authority, or one who looks after their affairs. Psychiatric treatment may be available from psychiatrists located near their homes, from outpatient clinics,

mental hygiene clinics, or the patient may return to the hospital periodically for checkups on a voluntary basis and without financial charge.

How long will a person need psychiatric treatment after leaving the hospital? How will he know that he is well?

There tends to be a gradual realization on the part of the patient that he is able to handle his affairs, that he feels reasonably well most of the time, that his judgment is increasingly sound, and that his emotions are under control. These skills will eventually help him to demonstrate that he is able to take care of himself. Reassurance, of course, from friends and family is helpful when it is based on reality and not when it is just a "Pollyanna" type of encouragement. The acceptance of responsibility and the ability to carry it out is an important index to one's progress.

Patients who are in the period of recovery, even though they are nearer and nearer a reasonable cure, must expect occasional periods of discouragement or mood swings when they are under a bit more stress than they can easily carry. These periods may disappear in a short time. If they do not, the patient and his family should realize that further treatment may be necessary. However, they should be encouraged by the fact that it may be a matter of getting over a hump. A brief return to the hospital, psychiatrist, or clinic may be all that is necessary.

What community agencies can help the patient in his rehabilitation?

Friends, business associates, employment agencies, employers, social workers, lawyers, ministers, civic leaders, all these may be of help to the patient. Well-informed persons can help greatly by setting a good example and by educating and leading the community toward tolerance and assistance for the patient.

Agencies or institutions that provide medical care, employment, housing, economic assistance, leisure-time activities, assistance in the home, special equipment for training purposes, vocational rehabilitation can be helpful. Information stations such as occasionally are operated by mental health societies or associations of parents are extremely useful as places where former patients or their families may go for information. (See *Agencies*)

Special mention should be made of law enforcement agencies such as state, county, and municipal police. These public servants can be useful in many ways other than the apprehension of lawbreakers. They

can be understanding with those who are lost, strayed, or confused—treating them in a kindly fashion, providing transportation, or assistance in locating family or friends. It is important that the law enforcement agent be educated about mental illness so that the patient will lose his traditional attitudes of fear or expectation of violence regarding him. It is important that the law enforcement agent understand that many situations can best be handled by taking precautions so as not to increase the excitement, panic, or fear of one who is suffering from a temporary mental disturbance.

Economic assistance is occasionally necessary in order to help a patient find a place to live, to receive special vocational training, or to add to what may be a meager pension or social security income. Such economic agencies exist in the welfare departments of county and city government. Money is available from a number of different sources. Among these are tax-supported programs for public assistance to the indigent, for medical assistance to the aged, for maternal and child welfare, for crippled children, for the totally disabled, for the blind, and for the deaf. Private welfare agencies and those rendering home services may also be available to patients home from the hospital.

MENTAL RETARDATION

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Who are the mentally retarded?

"Mentally retarded" is a relatively new descriptive term for the men, women, and children who would once have been called feeble-minded, mentally subnormal, mentally defective, backward, idiotic, imbecilic, or moronic. Although this term is more acceptable than its predecessors with their heritage of stigma and ridicule, it is far from precise and has many interpretations and definitions.

Generally, however, all authorities agree that mental retardation is the inability to learn and mature socially at the usual rate because of something that happened before birth, during birth, or in the developmental period up to about the age of sixteen. Adults of normal intelligence who lose memory or reasoning do not thereby become mentally retarded; they are like buildings that have been damaged after completion. Mentally retarded adults, on the other hand, are like buildings whose construction was arrested; they have not gone past a lower level of knowledge, judgment, and adaptation to our complex society that most of us reach.

Beyond these common assumptions are numerous attempts to define a condition (and most authorities call mental retardation a "condition" rather than a "disorder") about which so little is known currently and too much is rapidly being learned for definitions to be uniform or fixed.

Some authorities include as mentally retarded those children who function below their age because home, community, and educational disadvantages have deprived them of stimulation and opportunity for learning. Other authorities restrict the term to those who have, and can be expected to continue to have, some mental handicaps no matter how favorable the influences around them. Some authorities cover children who, testing indicates, have average or superior intelligence, but because of emotional disturbance are unable to use it and therefore in such things as talking, playing, learning, and socializing fall below others in their age-group. Equally reputable authorities put such youngsters in a different category and apply "mentally retarded" only

to those whose brains are adversely affected by disease, injury, or complex, unfortunate combinations of their parents' genes (the factors transmitting hereditary traits). (See *Psychodiagnostic and Personality Testing; Intelligence Testing*)

Consequently, the answer to "Who are the mentally retarded?" can with equal validity be answered in two main ways.

Both the American Association on Mental Deficiency and the National Association for Retarded Children emphasize that the term applies to the current status of an individual, and broaden it to take in those who might no longer come under its heading if they were moved to a different environment or had better teaching or effective psychiatric treatment before it was too late.

Under the smaller semantic umbrella of the United States Office of Education, the United States Children's Bureau, and the Devereux Foundation in Devon, Pennsylvania, come only children with inherent impairment of their capacity to learn and put learning to use. Others whose learning and social maturity are markedly below par are differently categorized as "subculturally retarded" or "pseudoretarded." The pseudoretarded may be educationally slowed down because of defects of hearing, vision, or speech; or because of specific language or reading disabilities although general intelligence tests classify them as normal; or because of debilitating chronic infections or malnutrition or markedly poor coordination, as in cerebral palsy. "Some types of mental illness may also give a false appearance of mental retardation," according to the United States Office of Education.

For the purposes of this article we shall consider the mentally retarded as those individuals who have a chronic condition of arrested or incomplete brain development that existed or occurred before adolescence.

Are there different degrees of mental retardation? If so, what are they, and what is their distribution among all the mentally retarded?

The answer to the first part of this question is "Yes." The mentally retarded range from the small minority so badly damaged mentally and, as a rule, physically, that they need lifelong round-the-clock care, to the great majority who often look normal and with some supervision can hold jobs. In between are a group who cannot ever get far academically or live without continual supervision, but who can be trained in self-help, self-care, and the performance of some elementary tasks.

These groupings shade into one another without clear lines of de-

marcation, but for practical purposes of education and care they are classified as mildly retarded, moderately retarded, and severely retarded; or educable, trainable, and custodial; or upper range, middle range, and lower range; or mostly independent, semidependent, and totally dependent.

In terms of the I.Q.—an incomplete but fundamental standard of judging mental retardation—the approximate range of the mildly retarded is from 50 to 70, of the moderately retarded from 30 to 50, and of the severely retarded from 0 to 30. Estimates of the proportion of all the mentally retarded in each group range from 75 per cent to 85 per cent mildly retarded, 11 per cent to 20 per cent moderately retarded, and 3.5 per cent to 5 per cent severely retarded. Even where these estimates are based on different criteria for mental retardation, they agree roughly on the relative size of the groups.

What is the cause of mental retardation?

There is no one cause; there are many causes, and many of these are unknown. Herman Yannett, Medical Director, Southbury State Training School, Connecticut, lists over 200. Other authorities' counts run from 50 to 90 causes.

Of course, when someone specifies the causes of mental retardation, their number depends on the definition used; by the definition followed here, for example, "cultural deprivation" or "childhood schizophrenia" would not be included. But even within organic limits the number of known causes of mental retardation is formidable. According to the National Institute of Neurological Diseases and Blindness, well over 40 involve some kind of "inborn metabolic defect."

Some mental retardation is "genetically determined" at conception: a certain combination of the parents' genes brings about faulty metabolism that does not produce normal brain development. This is not just the old bogey of "hereditary feeble-mindedness" raising its ugly head, for scientists no longer believe that mental retardation is transmitted as an entity according to Gregor Mendel's laws of heredity. Current thinking has it that since there may be 24,000 pairs of genes in the body, innumerable combinations are possible. (See *Heredity and Mental Health*)

A number of researchers put their emphasis on something that happens during pregnancy, rather than on genetic mutation, as the villain in the tragedy of mental retardation. In a few years, more will be known about brain damage having its origin during pregnancy or

birth. By 1964, in a project sponsored by the National Institute of Neurological Diseases and Blindness, 40,000 women will have been studied through their pregnancy, labor, and delivery, and their babies will have been examined regularly until school age. Meanwhile, it is pretty well established that certain infections, attempted abortion, glandular disorders, and poisons in the expectant mother's blood might occasionally cause a child to be congenitally retarded. Suspect but unproven is maternal malnutrition.

For about a decade it looked as if German measles or certain other infections in about the third month of pregnancy were the clue to solving the mystery of mongolism, a condition in one of about 600 to 700 babies. Mongoloids, who have been called "unfinished children," seem to have experienced some disturbance or arrest of development in the first few months of embryonic life. Their eyes appear to be slanted, and they have other physical peculiarities. Academically, they can rarely progress beyond second grade. But recently a direct connection between German measles and mongolism has been discredited.

Altogether, up to 1960, there were 39 reputedly developed theories of its cause. Recently the discovery that mongoloids have an extra chromosome (the part of the cell containing the genes) in their cells offers new food for thought. Since the number of chromosomes is fixed in the cell from which a baby grows, the cause of mongolism may be genetic rather than traceable to the period between conception and birth. It all adds up to a big question mark, as does so much in mental retardation.

Sometimes the cause of retardation occurs during birth. Quickly and devastatingly, anoxia (lack of oxygen) may injure the delicate cells of the brain. Among the numerous mishaps or situations that may create anoxia are: strangulation by the umbilical cord; prolonged, difficult labor; "holding back the baby till the doctor comes"; and excessive anesthesia.

Accident, injury, or disease during birth, infancy, or childhood may cause mental retardation, but a much more common cause of brain damage that may occur during the first five years is prolonged high fever. Some of the common diseases of childhood, such as scarlet fever, measles, and whooping cough, can be dangerous if a child has a severe case. Cerebral meningitis, an inflammation of the brain, or pneumonia may be followed by mental retardation; encephalitis (sleeping sickness) likewise may be devastating to brain tissue.

The majority of the mildly mentally retarded have no discernible

brain impairment. Whether this means that they only seem retarded, or that diagnostic methods are not sufficiently refined to detect possible existing damage, or that the criteria for judging mental retardation are artificial and unrealistic, is a matter for conjecture and varied interpretation. At any rate, the causes of most cases of mild mental retardation, even though they may be labeled genetic, are in the last analysis unknown. (See *Conception, Pregnancy, and Childbirth*)

How many persons in the United States are mentally retarded?

About 5,500,000 Americans—3 per cent of the total population—are or seem to be mentally retarded. This estimate is based partly on the normal distribution curve of intelligence and partly on sampling studies. There is no national census on mental retardation, which, unlike births or infectious diseases, is not reportable.

How many of the mentally retarded are in institutions?

Only 4 per cent of the mentally retarded are in institutions. The majority of the remaining 96 per cent either live with their families or maintain their own homes.

Do United States estimates of the prevalence of mental retardation differ from those of other countries?

International comparisons are difficult because of different criteria, terminology, and methods of study. Insofar as can be gauged, however, the estimates of European countries seem to accord with ours.

In non-European countries, according to Seymour Sarason of the National Institute of Neurological Diseases and Blindness, mental retardation must be severe before it gets special attention. Therefore, as in many other aspects of this little-understood condition, it is not possible to make positive statements about the comparative incidence of mental retardation in non-European cultures.

Is the incidence of mental retardation in the United States greater in either of the sexes? At certain ages? In any particular national, racial, economic, or religious group? In rural or urban groups?

The only available statistics about the incidence of mental retardation by sex come from institutions, and thus may mean little or nothing with regard to the community as a whole. By these figures there are definitely more mentally retarded males than females; one enumeration has it twice as many. This might be attributed to society's putting

greater competitive demands upon men and boys than upon women and girls, or to families' expecting more of their sons than of their daughters, except for the fact that the highest proportion of institutionalized males to females is in the newborn to four-year age-group. The distribution curve of intelligence likewise shows a greater incidence of mental retardation among males. This is comfortingly (for males) in line with the fact that the same curve also shows a greater incidence of male geniuses.

With regard to age, the incidence of mental retardation seems to be relatively low at birth and does not increase very much during the preschool years. At school age it rises sharply. It reaches its peak at ages ten to thirteen, and then declines. At about seventeen—a little past the compulsory school age in most states—it has a marked drop.

There is no scientific evidence that the incidence of mental retardation that is inborn or caused by injury or disease before adolescence, is any higher in one national, racial, economic, religious, or environmental group than in another. Yet indubitably subcultural retardation occurs in some groups more than in others: Negro *vs.* whites, rural *vs.* urban, underprivileged *vs.* the wealthy.

Superficially, much mild mental retardation seems to "run in families." But a great deal more study is needed before we will really know what part of it is transmitted biologically and what is the result of a continually poor environment generation after generation.

Similarly, glib assumptions about "race" require breakdown. There do seem to be more mentally retarded Negro than white children, but according to Sarason, when southern Negroes migrate to the North, "The important fact is that . . . with the passage of time, and in particular with continued attendance in Northern schools, this deficit is largely made up."

City children, reports Sarason, have been shown to be more "intelligent," on the basis of tests of schoolchildren, college entrance tests, and draft rejection rates. But, he points out, cities have larger schools that can have specialized teachers, the teachers are likely to be better, and attendance is not interfered with by weather or crops. On the other hand, rural schools are not so rigidly classified as urban, and teachers can know their pupils more intimately, which is all to the good. So in the last analysis, he believes, any rural-urban comparisons are inconclusive.

The same is true of other group comparisons. In the light of present knowledge, attempts to answer questions about the incidence of mental

retardation in various groups are likely to bring forth more questions than answers.

Is the number of mentally retarded in the United States increasing or decreasing? Why?

Despite a few preventive drops in the bucket, it is increasing, not only apparently—because of better methods of detection—but actually. The United States Children's Bureau expects the number to exceed 6,500,000 by 1970. At least half of these individuals will be children, many of them in the preschool age-group and suffering from severe retardation.

Paradoxically, a cause of this increase is improved obstetric and pediatric care. Infants now survive who formerly would not have been born at all because they would have been lost as miscarriages; who would have been stillborn; or who would have died in the first few hours, days, weeks, or months of life.

Furthermore, the mentally retarded share with the general population the greater life expectancy that is the result of antibiotics and other medications, more widespread sanitation, and better nutrition. Therefore, there is an unprecedented number of mentally retarded among the aging.

Would euthanasia be preferable to keeping alive the severely retarded who give no evidence that they can ever contribute to the community or get anything out of life personally?

There is no economic justification for giving care to those who will always be a burden to the community. The main justification for keeping alive the severely retarded is philosophical and spiritual. It is based on the belief that in every human being, however damaged, there is a spark of the divine simply because he is human. A secondary justification derives from the possibility that something might be discovered, at any time, promising cure or amelioration of currently "hopeless" conditions. The alternative can only be a form of Nazism, and involves the tremendous danger of allowing dictators or a society ruthlessly to eliminate the unfit and sometimes to use this as a pretense for doing away with persons hostile to their beliefs and policies.

What has been the history of society's attitude toward the mentally retarded?

Over the centuries mankind's attitude toward its mentally weakest members has been mostly contemptuous, harsh, negligent, or cruel.

There is abundant evidence that "the village idiot"—scapegoat, object of ridicule and disgust, butt of merciless practical jokes—was already a character in early recorded times.

The ancient Greeks, especially the Spartans, left retarded infants to perish on a mountainside or cast them into a river with full legal, social, and philosophical approval. Such infanticide is still practiced by some primitive and impoverished peoples.

Rich Romans customarily had "idiot" attendants. (Until the twentieth century, the word idiot was used for all ranges of mental retardation.) They were retained not so much as servants as to afford amusement, like the "fools" and "jesters" who were part of the household of European kings and peers until relatively recent times. Often the court jesters were quite mildly retarded, but had enough wit and humor to entertain their masters.

The Orient has been more humane than the Western world toward the mentally retarded, who have in general been tolerantly treated or even treated with reverence as though they had been favored by the gods. Muslims also have been gentle. The Koran specifies to "maintain them . . . clothe them and speak kindly unto them."

In some cultures, on the theory that "idiots" are to be pitied and helped, they are sent out to beg—often with excellent cash results. A retarded child in a Brazilian family may be considered more a joy than a sorrow for he may be its sole support. A religious order in India is entirely financed by the receipts of the retarded children it trains to go out to ask for charity. Tradition has it that if you are not generous with these children, you will be punished by having one born in your own family.

In Europe, "idiots" were subject to equal or worse superstition. Both Martin Luther and John Calvin regarded them as children of the Devil: Luther advised the parents of one mentally retarded child to throw him into the river in order to rid their home of a demon's presence. Paradoxically there was also the belief, especially when the retardation was mild, that "idiots" were the children of God—youngsters who walked the earth while their minds (or souls) were in Heaven.

Some Slavic countries have allowed the mentally retarded to roam at will in the assurance that they will be fed and sheltered by the people, who consider it sinful to mock or harm them. Sometimes their gibberish was interpreted as inspired prophecy, a direct communion with God or the saints.

But generally, until the nineteenth century, whether "idiots" were

considered children of God or of the Devil, they were looked upon as not really human, without a human being's mind or emotions, and therefore beyond the pale of human sympathy or aid. If they were considered dangerous, they were usually thrown into prisons and dungeons; if not, they were just neglected. Shocking hangovers of the idea that the mentally retarded do not have feelings like the rest of us persisted not only in the public's thinking but even in professional writing as late as the first quarter of this century.

The first scientific and humane attempt to solve the problem of mental retardation occurred at the turn of the eighteenth century. In 1798, a group of sportsmen in a French forest found a naked, inarticulate youth subsisting on roots and nuts. They took him to Paris where J. E. M. Gaspard Itard, convinced that the wild boy was not an "idiot" but an untutored savage, set about trying to educate him to become a normal member of society. After a number of years, he was compelled to recognize that though his pupil had improved, he was definitely not of normal mentality. However, Itard had demonstrated that a mentally retarded person was trainable, and his experiment marked the beginning of efforts to develop the limited potentialities of the retarded as much as possible.

A young Parisian physician, Édouard Seguin, continued Itard's pioneering work. He carried on intensive research in the causes, nature, and possible ways of treating mental retardation. By the 1840's, physicians in other European countries were beginning to study, care for, and treat the mentally retarded. During the same period, "idiot schools" and "idiot asylums" began to be established in the United States. Later these came to be called schools for the feeble-minded. They were launched on a high wave of optimism. It was believed during the nineteenth century that if we just poured in enough knowledge over a long enough period of time, practically all the feeble-minded could be returned to the community as self-supporting. But disillusionment came, as it had come for Itard. In time it became apparent that many of the children would need care all their lives.

But where were they to go? The existing schools for the feeble-minded were few and small and were not set up to give custodial care. About the 1870's, there began to be a swing toward establishing special custodial institutions. Definitely humanitarian in intent, this trend was based on the conviction that the feeble-minded needed protection from society.

However limited or misdirected this kindly and altruistic concern for the interests of the feeble-minded may have been, at the turn of the twentieth century and for more than two decades thereafter it was succeeded by something much worse. Both the public and professional persons became virtually hysterical over "the menace of the feeble-minded" and demanded not, as previously, that they be protected from society, but that society be protected from them. Back of the terror and ire were several unscientific, now completely discredited studies, such as those of the so-called Juke and Kallikak families, which led to the conclusion that feeble-mindedness was the root of all evils. It was "proved" to be hereditary. The feeble-minded proliferated uncontrolledly, the thinking went; they spread, multiplied, and perpetuated diseases, poverty, degeneracy, prostitution, crime, alcoholism, and every other conceivable social, medical, and economic ill. Everyone who was below normal intelligence, it followed, must be isolated or destroyed lest he destroy society. "Put 'em away in an institution" was one solution, but obviously there could not be enough walls and buildings to contain all the dangerous characters threatening the body politic. A rash of panicky, confused, and scientifically quite unsound sterilization laws were passed by state legislatures. Fortunately, except in a very few states, these have been seldom or never used, but in a number they still remain dangerously on the books. (See *Eugenic Sterilization*)

Gradually, in a more analytical and scientific period, the agitation died away. A few dedicated pioneers like Walter E. Fernald, for whom the Walter E. Fernald State School, Waltham, Massachusetts, is named; E. R. Johnstone of the Vineland Training School, Vineland, New Jersey; and Helena T. Devereux, founder of the Devereux Schools, headquarters at Devon, Pennsylvania, tirelessly demonstrated that even though the mentally retarded could not become mentally normal, many of them could, on their own level, be helped to lead happy and productive lives. In a few medical and psychological laboratories scientists tried to solve the riddle of the cause of mental retardation. But by and large, in the 1930's and the 1940's, the mentally retarded were overlooked, neglected, or hidden away. If the first two decades of the century had been a time of alarmism, the next two were a time of general indifference.

In the late 1940's and early 1950's, some writings began to call public attention to the shocking conditions in underfinanced, understaffed,

overcrowded state institutions where human beings were kept without training or stimulation under conditions far worse than those of animals in zoos; to the appalling lack of community facilities for children who could learn in special classes and need not and ought not ever be institutionalized; and to the families who were financially and emotionally wrecked because of members for whom there was no help anywhere. All the state institutions had (and still have) long waiting lists. Nearly all the child guidance clinics of the time, after a diagnosis of mental retardation, refused to help further.

During the same period, in a spontaneous, grass-roots movement, groups of parents of mentally retarded children began to form. Sometimes they started with as few as five members, who shared their problems with one another and established little schools for those children rejected by the public schools. In 1950, forty local parents' groups affiliated and in 1953 became known as the National Association for Retarded Children, which now has over 900 affiliates.

N.A.R.C. has had an enormous influence in creating public awareness of the problem of mental retardation. Among its activities, it has awakened legislators, educators, physicians, social workers, and others to the needs of the mentally retarded; it has stimulated research in causes and prevention; and has spurred the public schools to take responsibility for the mentally retarded as they do for other children.

At long last, private philanthropy, government, and medical and church groups also are bestirring themselves about the mentally retarded. Although too often the mentally retarded are still rejected or bypassed; although all types of facilities for them are still too few, far between, and uncoordinated; and although scientific research on causes and prevention has scarcely begun, a great and significant change in society's attitude is occurring. For perhaps the first time in history, the mentally retarded are beginning to be looked upon primarily as people, entitled to the same democratic opportunity for self-fulfillment within their individual capacities that would be available if mentally they were average or superior. Along with this goes the belief that the only ultimate solution for this problem of great human waste, not only of the individuals afflicted but of the relatives and friends whose lives they touch, lies in prevention.

In October, 1961, President John F. Kennedy recognized, affirmed, activated, and channeled the current feeling by appointing a panel to report to him on a comprehensive national plan in mental retardation.

Is mental retardation curable?

No. As of today, science knows no way to repair or replace brain cells. Many parental hopes have been tragically dashed when a child did not achieve mental normality via glutamic acid, cellular injections, surgery to increase circulation to the brain, gland extracts, vitamins, drugs, osteopathy, or chiropractic.

All this does not mean that physical toning up and good medical care are not as important for the mentally retarded as for the rest of us. On the contrary, they are perhaps more important. More than half of the mentally retarded have one or more handicaps in addition to their retardation. We all find it harder to think and work as well when we are below par as when we are glowing with health, but fortunately we have some mental energy to spare upon which, with an effort, we can draw. The mentally retarded have no such reserve, and the better their general health is maintained, the more fully they can make use of whatever limited mental abilities they have. Regular medical and dental supervision, good nutrition and hygiene, and correction of any correctible physical defects can greatly raise a mentally retarded person's level of functioning.

Is mental retardation preventable?

A little of it, yes.

Biochemistry offers new hope. About one in every 20,000 to 30,000 babies is born with *phenylketonuria* (P.K.U.), a metabolic disturbance in which protein, instead of being healthfully digested, turns into poison so damaging to brain cells that extremely severe retardation occurs. P.K.U. can be detected immediately after birth by means of an inexpensive blood test, and if an afflicted newborn is started on a special diet, he develops normally. Despite its relative rarity, the burden of P.K.U. is so heavy in family grief and institutional costs that the United States Children's Bureau is spearheading a movement in state health departments to have the test for P.K.U. made routine at birth.

One of several analogous congenital metabolic diseases, *galactosemia*, likewise causes severe mental retardation and, as a rule, death within seven years. A diet free of milk sugar, given early enough, prevents brain damage.

Surgery can avert brain destruction or death in some—but not all—cases of hydrocephalus (water on the brain). The abnormal amount of cerebrospinal fluid that enlarges the skull and at the same time exerts disastrous pressure within it, may, in many instances, be drained off by

means of a tiny, permanent plastic valve placed inside an infant's head.

The effects of cretinism, a congenital decrease or absence of function of the thyroid gland usually causing moderate mental retardation, can be greatly reduced if the condition is detected and treated with thyroid extract very early in life.

The brain damage in congenital syphilis is completely avoidable. Blood tests and antibiotics can ensure that both parents are free of syphilis at the time of conception.

Much research still needs to be done before anyone can say positively how much is preventable of the mental retardation that has its origin during pregnancy. In the meantime, regular prenatal examinations and care help to prevent some of it. Urinalysis and appropriate treatment decrease the chance of disastrous toxemia (blood poisoning). Blood tests disclose incompatibility in the Rh factor in the parents' blood, and if necessary, the newborn baby gets immediate blood transfusions that prevent brain damage from Rh disease. Good maternal nutrition, even if not a specific established preventive, seems to make good common sense. Prevention of prematurity is also a preventive of some mental retardation. Although many "preemies" develop quite normally in every way, those weighing three pounds or under at birth are especially vulnerable to brain impairment.

With reference to brain damage incurred during birth, it is even more difficult to be categorical about what is preventable. Many mothers of birth-injured children torment themselves with the thought that "it wouldn't have happened" if only they had had another doctor. Although physicians are human, and may therefore make mistakes in judgment or be clumsy, the fact remains that some of nature's accidents are beyond the control of even the most skillful, experienced, and conscientious obstetricians.

Modern medicine has means of preventing much of the mental retardation resulting from childhood illnesses. Immunization has spectacularly cut down the incidence of diphtheria, measles, whooping cough, and scarlet fever. If a child does contract one of these diseases, damage to his brain can generally be averted through use of such medical resources as antibiotics and oxygen tanks.

Are the mentally retarded identifiable by their appearance?

Only the minority who are "clinical types." Individuals who have hydrocephaly and macrocephaly have oversized heads; individuals who

have microcephaly have heads that are undersized. Cretins have a kind of wizened, elderly look. Victims of gargoylism have strongly marked features, deep-set eyes, and gangling hands. Mongolism is characterized not only by the apparently slanting eyes that give the condition its name, but also by many abnormalities including a somewhat flattened head, small mouth cavity and large tongue, and sometimes webbed toes.

Members of the clinical groups are severely or moderately retarded. Many of the moderately retarded and most of the mildly retarded, however, cannot be identified by their appearance.

What characteristics are common to the mentally retarded?

None but well-below-average ability to learn or put learning to use. The mentally retarded may be physically attractive or repulsive; socially well adjusted or total misfits; amiable or disagreeable; extroverted or introverted; quiet or noisy; overactive or apathetic; happy or unhappy.

Is the mentally retarded individual aware of his difference? If so, how can he be helped to adjust to such awareness?

The answer to the first part of this question depends on two factors.

One is the degree of retardation. Probably the greater it is in a person, the less he is aware of his difference. But it would be presumptuous to say this more positively, for the severely retarded cannot really communicate and the moderately retarded are not very articulate. The mildly retarded are usually aware of their difference, indeed often excruciatingly so, especially if their mentality approaches the borderline of normality.

The other factor is family and community background. A mildly retarded individual from a professional, socially prominent, or high-powered-executive kind of home is likely to feel much more of a misfit than one whose parents are sharecroppers or trash collectors.

Because they may have a painful awareness of difference, the mentally retarded often are better off learning, working, playing, and even living among their peers than attempting to compete or even go along with their mental superiors. But wherever they are and whatever their activities, the kindest and most constructive thing the rest of us can individually do for them is to be both realistic and accepting.

While we should not call attention to their deficiencies, neither should we deny them, for denial will not ring true. We should make

them feel (if they indicate that is how they themselves feel) that yes, they are different, but that the difference is unimportant. Each of us is different and deficient in some way, we can point out: we may have astigmatism, or flat feet. The mentally retarded can be helped to feel, in effect, "Sure, that's the way I am, but what of it!"

"Environmental therapy" is a subtle, pervasive means of enabling the mentally retarded to accept the mentality they have, make the most of it, and enjoy life. Like "milieu therapy" for mental illness, environmental therapy consists essentially of surroundings in which every person and every thing furthers a feeling of ease, acceptance, self-confidence, and usefulness for the individual afflicted. The best residential facilities, public and private, provide round-the-clock environmental therapy. They are small worlds in themselves, geared to the needs and pace of their inhabitants. Each one who is capable of it, is given a responsible part in making the wheels go round, whether this be pouring milk at mealtimes in an institution where the average chronological age is twenty-two and the average mental age is two, or selecting hymns for Sunday church services and serving on a rule-making, improvement-suggesting student council in one where the mental level is relatively high.

Appropriate training is another bridge over the gap of feeling "different." For the younger mentally retarded child it means "going to school like the other kids." For the older one, it means vocational training, and a job like other adults. "No, you can't be a pilot, or airline hostess," the teacher conveys, "but you can be a first-rate window washer, or waitress."

What are some of the special emotional problems of the mentally retarded?

Outstanding is a feeling of frustration. Unless the mentally retarded are given particular, understanding treatment, and special training or education, day after day they are bound to experience failure in one way or another. Perhaps unclearly, but nonetheless heartachingly, they sense that they are not coming up to their parents' expectations; that they are rejected by their contemporaries; that they are not pleasing the teacher or the boss.

A corollary is the sense of not "belonging." This may be felt within the family, and almost surely it will be felt among the group of children in the neighborhood. The emotional discomfort of not belonging tends

to become more acute at school age and especially so at chronological adolescence.

A feeling of inferiority is also likely to weigh down the mentally retarded; the mildly retarded probably even more than the more severely retarded.

Is it possible for the mentally retarded to become mentally ill? If so, are there mental disorders that affect them especially?

Since the mentally retarded are people, not only are they subject to the same range of physical and mental disorders as the rest of us, but also their bodily and emotional ills are likely to be accentuated. Because they are likely to be negligent in matters of personal hygiene, for example, they tend to have more than their share of dental troubles. Because they are easily shaken and disturbed, as a child is by a broken toy, they also tend to have more than their share of mental disorders.

Not only does mental illness occur at all levels of mental retardation, according to Sarason, but it also seems to occur more often than in the general population.

One explanation is that the mentally retarded are subject to more frustration than the mentally normal, and at the same time they have fewer resources for coping with it.

The most prevalent form of mental disorder among the retarded is schizophrenia. Since schizophrenia often gives the appearance of mental retardation, however, it is difficult to diagnose.

Can psychotherapy be useful for mentally retarded persons?

Yes. Both individual and group therapy have helped the mentally retarded. The Group for the Advancement of Psychiatry in 1959 said, "emotional conflicts in a retarded child while similar in type to those found in more gifted youngsters, are usually less elaborated. Psychotherapeutic measures, including interpretations can, therefore, often be simplified and yet be effective."

If the emotional problems of a mentally retarded individual are allayed, he is then able to function at a much higher level than when there was an overlay of disturbance on his basic mental retardation. After effective psychotherapy, even if testing shows no rise in his I.Q., the fact that he is less worried or more self-confident or not as self-centered on his own lacks and frustrations, enables him to behave and produce in line with his mental level instead of below it.

Why do some mentally retarded children and adults have odd mannerisms such as repeating movements or words, or grinning or giggling without apparent reason?

The causes of mannerisms may be either organic or psychological or both. Damage to particular areas of the brain may be responsible for swaying back and forth, head-banging, or the continual raising and lowering of a limb. It also accounts for much, if not most, echolalia (automatic repetition of words or phrases of others).

Boredom, loneliness, or frustration, however, may be the cause of head-banging; some mentally normal infants bang their heads for these reasons, too. Or the echolalia might be a bid for attention; again as mentally normal children when ignored keep on repeating something in order to be noticed.

Many of the grotesque mannerisms of the mentally retarded, such as twitching, grimacing, or silly laughter, are the outcome of self-consciousness and an agonizing feeling of inferiority. Hand-wringing may be a pitiful unconscious attempt to do something—anything—when one doesn't know what to do or say among others. With a more relaxed attitude and greater self-confidence—that is, improved emotional health—many mentally retarded children lose the mannerisms that made them conspicuous.

Even organically based mannerisms may disappear with training. It is, for instance, an innate tendency for the tongues of mongoloids to hang out, but with skilled, patient teaching, mongoloids can learn to overcome it. Nagging attempts to correct mannerisms, however, whether these be organically or psychologically induced, only serve to aggravate them.

Is mental retardation associated with epilepsy? Cerebral palsy?

Sometimes epileptics are retarded but by no means always. Where actual brain injury is involved, seizures may be part of the syndrome (a group of symptoms characterizing a disease) that includes mental retardation. In some cases frequent and severe seizures bring about mental deterioration, but as a rule when they occur in connection with mental retardation they are more a concomitant than a cause.

Cerebral palsy is always evidence of some brain damage, but this may be confined to the motor centers and if so does not affect ability to think. The lack of coordination and thick speech of many cerebral palsied children has made it so difficult to gauge their mentality that there have been ups and downs historically as to their potentialities.

In the past they were regarded as hopelessly "feeble-minded." Many with average and even superior intelligence were relegated to institutions' wards for the severely retarded and never given the slightest chance to develop mentally.

Then, experiments in developing the potentialities of cerebral-palsied children at the Vineland Training School, New Jersey, and the optimism of a pioneering and dedicated specialist in cerebral palsy, orthopedist Winthrop Phelps of Baltimore, Maryland, brought about a reverse swing of the pendulum. By mid-century over half were thought to be mentally normal.

Now, despite or because of better methods of determining and developing the intelligence buried beneath motor and verbal handicaps, the pendulum has swung back again, although not all the way back. More than half of cerebral palsied children are thought to be retarded.

Epilepsy, cerebral palsy, and mental retardation may all stem from the same cause of brain damage, and occur in combination. But even a combination of epilepsy and cerebral palsy will not inevitably include mental retardation.

How early can the symptoms of mental retardation be recognized?

It all depends on the type and degree of mental retardation. The "clinical" types, notably mongoloids, are usually recognizable at birth. At the other extreme, the mildly retarded without any known kind of brain injury may drag their way through a few years of elementary school before their slowness is evident. Most parents know with their minds that their retarded child is not developing like other children long before they are told by professional persons, but some go lifelong without in their hearts accepting the terrible truth. Most physicians are able to recognize unduly slow mental development in a child, but too many consciously or unconsciously lack the courage to be frank with parents and escape their responsibility with "It's nothing to worry about," or "He'll outgrow it." Often, in short, the symptoms of mental retardation could be recognized before they are.

How and by whom is the diagnosis of mental retardation made?

The degree of mental retardation and even its very existence are often extremely difficult to determine.

Ideally, diagnosis is made by a team of physician, psychologist, and social worker. The physician, a pediatrician, or in a few places, a child psychiatrist with good neurological training, assesses the child's general

health, his particular physical defects, if any, and above all, he looks for possible brain damage. The psychologist gives various kinds of tests that the child thinks are games, not only to determine I.Q. but also to detect possible emotional factors impairing ability to learn. The social worker sympathetically talks with the child's parents, especially the mother, to find out whether any home conditions or parental attitudes contribute to his slow development.

The findings are then discussed and evaluated, and a program of care, treatment, and training is recommended. Many clinics follow through for years with examinations and recommendations.

There are more than 80 specialized clinics for mentally retarded children in the United States, over half of them established during the past few years. But there are still not nearly enough to serve all the children who need them.

Is it possible for the I.Q. of the mentally retarded to change?

The I.Q. may change for better or for worse. In the research demonstrating this is a study of thirteen girls who were moved from one institution to another where they were showered with affection, got individual attention, and were given "minimal but adequate intellectual stimulation." Over a two-year period the I.Q.'s of these girls averaged a 27.5-point rise, while those of the girls who were left in the first institution were dropping an average of 26.2.

The I.Q. may remain static yet an individual may function on a lower or higher level than before. For example, a group of twenty-five-year-olds institutionalized since childhood were unable to read. Yet at sixteen, when their compulsory schooling ended, all had some reading skill. The mentally retarded, much more so than persons of higher intelligence, need help both to retain skills and to maintain interest, both of which are all too likely to disappear with disuse. On the other hand, without any rise in I.Q., a youngster who enters a good residential school or community special class at the time that bizarre mannerisms and apparently little potentiality for carrying through a chore become evident, may develop over the years into a poised, pleasant teen-ager or adult, fully able to assume simple responsibilities. He may also, with constant encouragement, continue to learn horizontally even though he has reached his limit of learning vertically; for instance, although he cannot go beyond the fourth-grade reading level, he may read and enjoy many of the books on many subjects written for that level, just as the rest of us are able to enrich ourselves with many books

even though we may never be able to read the Einstein theory of relativity with understanding.

Some of the organic conditions causing mental retardation typically worsen and bring about a lower I.Q., a lower level of functioning, or both. Since brain damage is involved, environment, therapy, and teaching can only help the afflicted individual to make the most of what is left at each stage of the regression that is inevitable in the current state of medical knowledge. (See *Learning and Reading; Learning and Reading Disturbances*)

Is it desirable for couples who have had a retarded child to have other children?

So little mental retardation is definitely hereditary and so much is accidental that rarely does the birth of one retarded child mean the birth of others. Professional consultation is important, however, for helping couples to base their decisions on whatever hazards there may be, such as genetic, or where the mother is concerned, physiological or structural. As a rule, physicians, psychologists, and social workers feel that it is emotionally healthful for all concerned "to go ahead and have more children."

What effect can a mentally retarded child have on the family?

The common grief and disappointment of having a mentally retarded child may strengthen a marriage, or it may break it, especially if one parent consciously or unconsciously blames the other for what happened. Similarly, the presence of a retarded child in the home may enrich the character of his brothers and sisters by rendering them more tender, tolerant, and considerate than they otherwise would be, or it may do them harm. It might become a "dating embarrassment" for sisters in the family. Another possibility is that the other children in the family would be sacrificed if the mother, at one extreme, gives the retarded child a disproportionate share of her attention or, at the other, puts the burden of his care on the brothers and sisters.

When ought the mentally retarded child to be put into residential care rather than to live at home?

The love, wisdom, and fairness with which home life is managed is one element in whether or not it is advisable to send a mentally retarded son or daughter away from home. There are many other elements, and the ultimate decision has to be based on weighing what is

best for all concerned. The mental and emotional condition of the child, the quality of the institution under consideration, the particular point in the life of the child and of his family, the family budget, and treatment, training, or educational resources available in the community, all must be taken into account before a sound decision can be made. A social worker's help is valuable for this.

The trend today is to encourage families to keep with them in their homes their mentally retarded who do not need hospital or hospital-like care. Even if an individual family is disinclined to go along with this trend, for very practical reasons it may have to. All public residential institutions have long and growing waiting lists, and the best private residential schools and the good private custodial homes are very expensive.

Is the incidence of delinquency higher among the mentally retarded than among the general population?

Formerly it was thought that there was a high correlation between low intelligence and delinquency. But there may be little or none, according to a 1951 World Health Organization monograph, *Psychiatric Aspects of Juvenile Delinquency*.

The severely retarded are too greatly handicapped even to be able to attempt delinquency; likewise, by and large, so are the moderately retarded. Even the mildly retarded are not ringleaders. They lack initiative and tend to be dupes, falling in with "the gang" because in the face of social and academic failure they so pathetically need to "be somebody."

What are the sexual attributes of the mentally retarded?

The clinical types virtually never have fully developed sex organs. There is only one case on record of a mongoloid woman giving birth.

The great majority of the rest of the retarded do have physiologically normal sex organs, but just as they are below normal in intelligence so do they tend to be below normal in other ways, and as a rule are not highly sexed. The males are unaggressive. If the females have illegitimate pregnancies, these are rarely, if ever, the result of their own strong desires. Sometimes they simply do not know how to say "No." Often they accede because of a craving for affection of which they feel deprived.

The prime preventive of sexual delinquency as well as other kinds of delinquency among the mentally retarded is good habit training, the

feeling of being loved, and the sense of achievement made possible by special education.

How prevalent are special classes in the public schools? What is taught in these classes?

Although enrollments of the mentally retarded more than doubled in the ten years 1948–1958 and the trend for more special classes has continued, more than 75 per cent of the boys and girls who could benefit by special education in the community still are not getting it. One reason is the shortage of qualified teachers.

Classes for “trainables” (the moderately retarded) are a rather recent development, with the majority having been established since 1950. There are very few attempts to teach academic subjects in these classes: concentration is on self-help, personal hygiene, habit training, acceptable behavior, and sense training such as learning colors and sounds. Pupils may learn arithmetic, for example, by keeping simple accounts of their own money; reading, via the labels on cans; and writing through filling out employment application blanks. Good grooming and doing things like cooking or woodworking are stressed more than “book learning.” Modest though such a curriculum may seem, it can make the difference between a forlorn, restless individual who is difficult and burdensome in a household, and one who is self-respecting, socially tolerable, and possessed of some resources, among them playing an easy musical instrument such as the autoharp or the harmonica.

Are the mentally retarded employable?

The majority are. Studies of the employment records of mildly retarded adults, made years after graduation from special classes, show that most not only are wholly or partly self-supporting but also tend to stay on the job steadily. They work successfully as clerks in variety stores, messengers, nurses’ aides, assistants in garages, dishwashers, counter girls, package collectors in department stores, and stock handlers. Some are competent drivers.

Increasing automation, with its demand for highly skilled technicians, may worsen the lot of the mentally retarded, or may better it. On the hopeful side is the fact that as others are upgraded, the retarded will fill the jobs vacated. On the discouraging side is the fact that there will be fewer and fewer jobs for unskilled people.

The employment potentialities of the moderately retarded are only beginning to be explored. Even without special training, according to

the United States Office of Vocational Rehabilitation, "mentally retarded persons achieve a much greater degree of out-of-school success than is commonly realized."

There is still, however, a vast waste of human resources involved in mental retardation. Over 25 per cent of even those who pass through special classes cannot be placed in jobs. There is need for new methods of training and teaching, for more sheltered workshops, and for greater community understanding and acceptance of the limitations of the mentally retarded.

Ought the mentally retarded to marry?

If they are able to assume the responsibilities of marriage and to be breadwinners or housekeepers, they may make conscientious and devoted parents. The simpler the surroundings in which they live, and the lower their socioeconomic background, the more likely they are to make a "go" of married life.

What agencies are specifically concerned with mental retardation? Do they adequately meet the need?

The federal government has shown great interest in the problem, especially during the past few years. The President's Panel on Mental Retardation was appointed in October, 1961. The National Institute of Neurological Diseases and Blindness in 1960 spent more than \$8,000,000 on basic research on the nature and causes of the condition, and the National Institute of Mental Health more than \$2,500,000 on psychiatric and other research, technical assistance, and grants. The United States Children's Bureau administers more than \$1,000,000 annually in grants for clinics and demonstration projects, with emphasis on mentally retarded children of preschool age, because paradoxically the greatest gaps in services to help both child and family are just at the age when the most might be accomplished. The United States Office of Vocational Rehabilitation now includes the mentally retarded among the handicapped persons whom it is possible to change from taxpayers' burdens into taxpayers. The United States Office of Education has long been concerned with exceptional children, the mentally retarded among them, but more and more it is stepping up its planning and programs to include trainable as well as educable children.

The states provide residential institutions, sometimes called state schools, sometimes state training schools, sometimes state hospitals.

State vocational agencies rehabilitate a few of the mentally retarded. State education departments have staff specialists in the education of the retarded, and sometimes help to finance the relatively high cost of special classes, which need to have teachers that are trained in special education, and only eight to fifteen children per teacher.

Denominational groups sponsor institutions or day care centers, some nonsectarian in enrollment, others not. There are excellent private, nonprofit schools. There are also many commercial homes and schools, good, bad, and indifferent.

Some diagnostic and guidance clinics for mentally retarded children and their parents are connected with general hospitals. Others are separately sponsored.

The best source of information about local facilities is the nearest parents' association. Sometimes such groups are run from one of its officers' homes and cannot be found by name in the telephone book. They can be located upon inquiry to the National Association for Retarded Children (N.A.R.C.), 386 Park Avenue South, New York 16, New York.

If no such group is within practical distance, the local schools, the state department of education, the local health or welfare department, or a family service agency may be helpful.

Costs of residential facilities range from hundreds of dollars per month in the most expensive private schools to nothing in a few state institutions. Usually state institutions make reasonable charges in accordance with parents' ability to pay. The same is true of the majority of clinics.

Impressive though a listing of sources of help for the mentally retarded may seem, actually all kinds of facilities are inadequate in meeting the overwhelming need. Public institutions are overcrowded and have long waiting lists. Teachers, nurses, and social workers specially trained to work with the mentally retarded are in appallingly short supply. Many medical schools teach much more about mental retardation than they did formerly, but too many physicians still have had little or no training for understanding and dealing with it.

President Kennedy said, "We must undertake a comprehensive and coordinated attack on the problem of mental retardation. The large number of people involved (i.e., families and friends as well as the persons affected), the great cost to the nation, the striking need, the vast area of the unknown that beckons us to increased research efforts—all demand attention."

MIDDLE AGE

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What is middle age?

Middle age is a kind of plateau, a resting place after the industry and responsibility of the thirties and forties, which allows the individual to prepare for his later, and, it is hoped, more serene years. The classic view is that middle age appears somewhat earlier in women than men, approximately at age forty-five as against fifty or fifty-five, and lasts until the early sixties or mid-sixties. This view emphasizes that there is only an approximate age range, and no exact age boundaries.

How many people are there in this group in the United States? How many are women? How many are men?

The United Nations Demographic Yearbook of 1960 records 36,511,000 people aged forty-five to sixty-four in the United States, of whom 17,703,000 are men, and 18,808,000 are women.

Do these rates differ from those in other countries? Why?

Yes, especially when compared with rates in countries where the life expectancy is shorter. The male-female differential is greatest in those countries where life expectancy is highest, e.g., in highly industrialized nations as against the underdeveloped.

Are these rates changing? If so, why?

Yes. Throughout the world the male death rate exceeds the female death rate at almost every age level so that overall there is a longer life expectancy for women than for men. In addition to women's longer life expectancy, other reasons for the increasing ratio of middle-aged women to middle-aged men are the high accident rate and military losses as a cause of death among men, the excess of men's mortality rates over women's for nearly all grave illnesses, and the decreasing mortality rate for city (as compared to rural) women as we become increasingly urbanized.

The pressures of our highly industrialized, competitive, and depersonalized society are taking their tolls among men, especially in cardiovascular and kidney diseases. In the decade or so before middle age too many men push themselves excessively in their work, drink too much, eat too much, and relax too little. Women make more intelligent use of good medical care and leisure time. Also women have been diet and weight conscious for a longer time than men, and this may be of importance in warding off or at least minimizing some of the degenerative disease processes that come with aging.

What are the typical attitudes of the person who is approaching middle age?

People approaching middle age typically begin to concern themselves with questions of security, health, and death. They feel they must begin to restrict their activities and conserve their resources. They may develop a certain rigidity in their thought and behavior patterns, demonstrating decreased tolerance for separation from loved ones, especially their children, and marked feelings of dependence upon younger people, without being aware of this. They may become overly attentive to matters of health, exaggerating even minor physical disabilities. They generally express concern about growing old and about the occurrence of serious illness and death among their peers. A sense of the settling down of life begins to appear and an awareness that the road is no longer uphill but is, in fact, leveling off.

How much influence do the experiences of the early years have on the middle-aged person?

The experience of the person, at less mature stages of development, plays an important, even determining, role in his growth toward greater maturity. This applies as well to middle-aged people, as to other age-groups, all of whom are very much under the influences of their early years and experiences. By the middle years the individual's capacity to change and adapt, e.g., to counteract or capitalize upon those earlier influences, has diminished. It is important, therefore, to nurture some degree of flexibility and a capacity to adapt to changing circumstances.

What are the special challenges and stresses of middle age? Are they in a process of change?

The great challenge of middle age lies in the necessity to adjust downward from the previous period of activity and responsibility. Skill

and self-understanding are required to negotiate a proper accommodation to a slower pace, a less crowded day, or to lighter responsibilities. One needs to relinquish control, and to accept the shift in attention from oneself to others. Above all, one must find satisfaction and stimulus in younger people, despite differences in values between generations. The world does not fall to pieces because familiar ways change or take on new forms, or because one is less needed in families or in jobs.

Aging is a gradual and slow process, and it is important for the middle-aged person to avoid the delusion that with his advancing years his life is essentially over. If one is free from direct family responsibility and somewhat more comfortable financially, as is often the case during these years, long-delayed participation in interests such as travel and hobbies can be activated. Many people have even begun new and perhaps more satisfying careers during this time. The challenge, in short, is for the middle-aged person to place himself on the side of life, not on the side of death.

Probably these challenges will shift somewhat to the later years of middle age because of the increasing millions who survive beyond the age of retirement. If the middle-aged person is reasonably imaginative, inventive, and spontaneous, he will find ways to occupy his leisure time—the time he previously used to earn a living. Leisure time is undoubtedly going to present even greater challenges to the healthy middle-aged person in the future.

How are these challenges and stresses usually met by the middle-aged person?

He usually responds by limiting his interests and activities and developing greater dependence upon members of his family, especially upon children, and by clinging too much to patterns of the past. This should be avoided at almost all costs. Acceptance, flexibility, and independence are the cues. A certain degree of vicarious living through one's children's lives is natural and even healthy, but one should not depend upon one's family to supply the energy and motivation for one's own life at any age, perhaps least of all in middle age. Free from restricting and confining family ties, many people find in middle age their first opportunity to be truly independent. Adult children should be viewed as friends, peers, and colleagues, rather than as indebted persons obligated to support parents or to accept parental authority and guidance.

What are the essential characteristics of this period? For the man? For the woman? Of personality? Emotional? Sexual? Physical? Social?

For a man there may be a reduction or alteration in his business or career schedule. For a woman there may be very real changes in home responsibilities and in family situations, where she no longer is needed as she once was. Though it is true that advancing years bring increasing risk of physical illness, with intelligent care of oneself, the middle-aged man or woman need not suffer physical disability to any greater degree than in earlier periods of life. There may be a temporary period of emotional lability (a quick shifting from one emotion to another), but this is usually self-limited and is often followed by a new level of emotional integration never before achieved by the individual. Except for transient and usually minor variations, the spectrum of sexual activity will continue to represent the varied patterns of individuals, always remembering that from late adolescence or early adulthood to old age, there is a general pattern of decline in sexual interests and activity. There are few changes in personality in the middle-aged person except in the direction of becoming more than ever like himself; that is, personality traits tend to crystallize a bit, to become more fixed. It is wise for the middle-aged person to recognize this and at least try to develop new interests and capacities on the grounds that these will provide some degree of protection against premature stultification of the personality.

What are the reasons for the differences in attitude of the middle-aged male vs. the middle-aged female?

The middle-aged female is more keenly aware of the physiological changes accompanying middle age than is the man. The menopause clearly signifies the end of the childbearing time of life. Many women feel that the end of their menstrual cycle means a loss of femininity and become very disturbed about this. On the other hand, whether or not a man experiences declining sexual vigor at this time, he may well be at the peak of his business career and earning capacity. Some men may develop a "now or never" attitude and become extramaritally involved, especially with younger women. A middle-aged wife may feel that the meaning has gone out of her marriage, or that she has lost her purpose, whereas the man may still be full of a sense of optimism and accomplishment.

How do these differences affect their relationship during this period?

Such differences represent real threats to marriage and if allowed to become exaggerated can develop into behavioral patterns of a severity that may require professional attention. Women need reassurance from their husbands during this time, and both men and women need to adapt themselves to, rather than react strongly against, the inevitable changes of these years.

What changes usually take place during this period? Intellectual? Social? Emotional? Physical? Psychological?

Middle age is a period of intellectual maturity and social stabilization with the result that one usually sees little change during this time. In fact, the opposite is usually the case. Middle-aged people tend to avoid change. They prefer familiar people, places, and things, rather than to seek out the novel as perhaps they once did. During this period both men and women have experiences indicating that certain physical and psychological changes are in process. Depending upon the individual, again, it is to be expected that there will be some physical slowing down, as, for example, impaired hearing and sight. There may also be some loss of memory, and, of course, this may be the time when evidences of aging occur, such as the replacement of natural teeth by false teeth. Some change in sleep patterns is not uncommon, nor are episodes of excessive emotionality. The ability to recognize the change from adulthood to middle age is a measure of good mental health at this time of life. The acceptance of oneself as no longer young—indeed, as “an aging person”—is a reality everyone must deal with. It is an enormous resource to come to middle age with a realistic attitude toward the gradual slowing down process that comes more and more into all our lives as we move along in years.

How much influence do the experiences of this period have on the rest of the middle-aged person's life?

A good deal, in the sense that middle age may possibly be the last time when we can reasonably expect ourselves to make the more effective kind of adjustments, accommodations, and compromises. The middle-aged person who meets the issue of age with equanimity and even with pleasure, gives himself insurance for the years when perhaps it may not be possible to be so flexible or reasonable. In a very real sense this period markedly influences the rest of the person's life.

To whom can the middle-aged person turn for guidance and help in his own environment? Family? Friends? Other middle-aged people? Ministers? Teachers?

He can seek help from all the individuals suggested by the question, but he may also turn to other professionally trained people: psychologists, psychiatrists, counselors, and social workers. Most important of all is finding the right person, whether a professionally trained counselor or not, in whom one can have confidence and trust. Of course, for serious problems, the proper professional advice should be sought, and the best place to begin in such instances is by consulting the family doctor, lawyer, or clergyman.

What agencies or institutions in the community are specifically concerned with the problems of the middle-aged person?

Actually there are very few community agencies in most areas that deal at all adequately with the problems of the middle-aged person. There are expanding facilities for children and adolescents on the one hand, and for aging people on the other; but not so for middle-aged people. For example, so far as this writer is aware, there are no special hospital clinics for middle-aged persons. Some local church groups, clubs, and adult education centers have programs of various kinds in which attempts are made to help middle-aged people, but at the professional level there is very little being done about treatment or prevention or education. Indeed, the isolation, identification, and description of the problems of the middle-aged person are a very recent development. There is no doubt of the need for such programs. As more and more interest develops in the whole question of the aging process, we will see it translated into active programs for the middle-aged person.

What therapies or treatments seem to be most suitable for middle-aged people? What has been the nature of their success or failure?

Pharmacological treatment has been useful for temporary alleviation of problems such as mild tension or anxiety states and some depressions. Psychotherapy of various sorts, but especially on a short-term basis, has proved very effective. Social workers, clergymen, and other counselors have helped some middle-aged persons make desirable environmental changes and adjustments in particular living circumstances. In most instances, success depends upon the establishment of a trusting relationship so that, by means of a more or less detailed and

profound examination of the problem, various solutions may be explored.

Are there mental disorders that affect the middle-aged person especially? Why? Is the rate of mental disorders of this period different from the rate in the population in general? How are these disorders detected? How and where are they treated? Are the facilities adequate?

Like the general population, middle-aged people can be subject to the broad range of mental illnesses and they commonly suffer from depression. In this age-group this depression is usually of the so-called involuntional type (depression occurring during or after the menopause or the climacteric), but recurrent or cyclic mood disturbances are also seen, as are certain organic mental illnesses, alcoholism, and some illnesses of which the chief symptom is delusions. Middle-aged depression has a very real relationship to the individual's character and personality structure, his level of emotional maturity, and his past experiences. We can only surmise that this kind of depression occurs as a part of the aging process, its exact cause being as yet undetermined.

The rate of mental disorders in this age period is high, as measured by admissions to state hospitals for psychotic reactions, where the highest rates are those in the age-group from thirty-five to sixty-four. The rate of the above sixty-five group is virtually equal with the rate of the fifteen to thirty-four group (these two rates being second highest). These disturbances usually manifest themselves by anxiety, tension, and disrupted physiological or behavioral patterns such as changes in diet, insomnia, or excessive sleeping, and bowel difficulty. Work patterns, too, may be disturbed. There may be difficulty in focusing attention, and some memory loss may be noted, particularly with regard to recent events. Members of the family or others may note, additionally, some degree of strangeness in the individual's behavior: withdrawal, loss of usual interest or enthusiasm, irresponsibility in money matters, indifference or hostility to loved ones.

Mental illness may also show itself in a completely unanticipated and quite surprising suicidal attempt, always a serious risk in mid-life depressions. In most of these cases, consultation with the family physician usually leads to the establishment of proper medical procedures, including at least a brief period of hospitalization. Here medication and electroshock treatment used in conjunction with, and followed by, psychotherapy, is the preferred treatment. Facilities for the treat-

ment of middle-aged people with involutional depression are very nearly the most adequate of all the facilities for treating any emotional illness. Indeed, many general hospitals have excellent facilities in their psychiatric services for the treatment of such patients.

What is the rate of success of treating mental disorders in the middle-aged person?

Treatment of these disorders, especially depression, has been remarkably successful. Indeed, over the past fifty years there has been almost a complete reversal in the prognosis. In former years depressed middle-aged people remained as inpatients for an average of from two to two and a half years. Now, in excess of 90 per cent of these people recover, and the duration of the illness has been markedly shortened.

Are the methods of treatment likely to undergo any change in the near future?

One hopes that continuing research will lead to more exact elucidation of the idiology and psychophysiology of these diseases so that specific treatment may be developed. One looks forward to less stringent measures than, for example, electroshock treatment. As a matter of fact, the new group of tranquilizing drugs has already gone a long way in this direction. As understanding of the illness increases, more effective medications will undoubtedly make their appearance. Simultaneously, there is increasing skill and effectiveness in the use of psychotherapy for these patients.

Based on current studies, what might be predicted about the general mental health of the middle-aged individual in the near future?

Based upon present clinical and empirical knowledge, one can rather safely predict that preventive and education programs will be developed to meet the mental health problem of the middle-aged person. As a consequence, we should see less emotional illness during this time of life, and, indeed, a lengthening of the productive period of the individual. The problems of shortage of properly trained personnel, and of course of finances, are real obstacles to the early and active establishment of such programs; thus one cannot be too hopeful about early or dramatic results.

In this field, the first job is to excite interest in the problems of the

middle-aged as a whole. Up to now most people in the social and clinical sciences have focused their attention and efforts upon children, adolescents, and the aged. Adequate mental health programs in this area could extend the capacities and talents of middle-aged people and provide a vast additional personnel resource to the community.

MILITARY PSYCHIATRY

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What is military psychiatry?

In common with other branches of military medicine, military psychiatry endeavors to conserve the fighting strength in war and the potential fighting strength in peace. Operationally, military psychiatry is a form of social psychiatry that places more emphasis on environmental difficulties, group pressures, interpersonal relationships, and other external influences than on internal conflicts, past or present. Like industrial psychiatry, military psychiatry strives to prevent or reduce noneffective duty performance caused by psychological or sociological reasons whether manifested by mental illness or deviant behavior. Thus, military psychiatry is concerned with all forms of maladjustment, including disciplinary offenses, alcoholism, self-inflicted wounds and accidental injuries, chronic indebtedness, marital disharmony, problems of individual and group motivation and adjustment under conditions of combat, isolation, or climatic extremes, as well as the more traditional psychiatric disorders of psychosis, neurosis, depression, and personality abnormality.

What is the history of military psychiatry?

Irrational and bizarre behavior in battle has been known since the recorded history of warfare. However, awareness of mental disorder as a military medical problem began in the latter half of the last century and developed parallel with the evolution of modern psychiatry. More than 5,000 cases of "nostalgia" were recorded in the Civil War. This was considered to be a type of melancholia caused by a continuous longing for home. Medical officers of various countries noted an excessive prevalence of mental disease in the Franco-Prussian, Spanish-American, and Boer wars. In the Russo-Japanese War (1904-1906), the Russian Red Cross organized a program in which the mental illness of military personnel was treated by psychiatric specialists.

These nineteenth century military experiences involved a relatively small number of severe mental disorders, the psychoses or "insanities."

Modern military psychiatry had its origin in World War I, when from the very outbreak of fighting in 1914, there appeared accounts of a novel psychiatric disorder termed "shell shock" that was of such frequency as to constitute a major loss of manpower. It seemed that warfare had reached new heights of terror and destruction that evoked a new mental disease born of external stress.

In time the Allied medical services came to recognize that shell shock was primarily a psychological disorder (war neurosis) and was not due to brain injury from the blast of high explosive. By 1915–1916, trial-and-error treatment efforts by French and British psychiatrists clearly demonstrated that a majority of shell-shock cases could be restored to duty by providing treatment near the front lines. Evacuation of such patients to rear hospitals seemed to worsen neurotic symptoms and produce chronic disability.

In 1917, the United States Army was alerted to the potential problem of war neuroses by the then National Committee for Mental Hygiene headed by Thomas W. Salmon (now called the National Association for Mental Health). After surveys at home and abroad, Salmon and his associates proposed that the U.S. Army adopt a comprehensive psychiatric program of prevention and treatment, which was accepted. When the United States entered World War I, Salmon and Pearce Bailey were commissioned and given responsible psychiatric assignments at home and abroad. The experience of World War I, the first full-scale program of psychiatry in the United States military forces, has been well documented in Volume X of the *History of Medicine in the World War*.

After World War I, military psychiatry became established as a permanent feature of military medicine in the army and the navy, but was mainly concerned with the traditional or serious mental diseases. With the onset of World War II, prominent civil and military psychiatrists and interested laymen were convinced that the psychiatric casualties of war could be avoided by the rigorous screening out of all potential emotional problems prior to entry in the service. However, as the war progressed it became evident that psychiatric screening was neither feasible nor practical. The frequency of psychiatric disorders in World War II was two to three times that of World War I despite the fact that rejections for psychiatric reasons were several times greater than in World War I.

Military psychiatrists in World War II, recruited almost entirely from civilian life, gradually relearned the lessons of World War I and

not only developed brief methods for the "up-front" treatment of combat psychiatric disorders, but initiated outpatient clinics for the situationally induced neurotic reactions of troops in training camps at home. Again it was demonstrated that it was of paramount importance to maintain the individual as a group member and assist him in overcoming environmental hazards and frustrations rather than to involve him in withdrawal from the group by hospitalization and its connotation of failure.

The insights gained in World War II became the cornerstone of post-World War II military psychiatric theory and practice. Soon after the start of the Korean War, a psychiatric program incorporating World War II techniques was instituted. This program placed little reliance on psychiatric screening except for rejection of the obviously mentally unfit. The incidence of psychiatric casualties was significantly less than that of World War II, and the vast majority of cases were successfully maintained on duty by treatment in the combat area.

Since the Korean War, military psychiatry has continued its gains and evolved a system of widely distributed mental health consultation clinics, which provide psychiatric evaluation and treatment to servicemen both at home and overseas.

What are the major psychiatric problems with which military psychiatry deals? What are their causes? Are they different in the various services?

The major problems of military psychiatry arise from difficulty of the serviceman in adjustment to change, separation from friends and family, physical deprivation and hazard, the unique features of military life as contrasted with the gradual changes and more subtle vicissitudes of civilian life. For this reason, military psychiatric problems are increased under wartime conditions of abrupt change and greater exposure to hardship and danger.

Schizophrenia and other severe mental diseases such as are found in civilian mental hospitals are apparently not evoked by external stress and strain, and occur with the same low frequency of approximately two per one thousand servicemen a year, both in peace and war.

Even in peacetime, when psychiatric disorders are less common, the major problems of military psychiatry involve difficulties in coping with situational demands, which fall into three fairly well-defined groups of cases. First are those individuals who display anxiety, irritability, depression, or other neurotic symptoms often with complaints

of headache, insomnia, tremor, easy fatigability, and other bodily accompaniments of increased tension. These patients are usually aware that their problem is an inability to tolerate or master situational circumstances. In some, psychological mechanisms produce temporary hysterical episodes of extremity paralysis, deafness, blindness, or other apparent losses of function that make possible the avoidance of painful reality with the mute offering of physical disability as the reason for their failure. Rarely there may occur transient periods of irrational or apparently disorganized behavior as a result of the individual's inability to withstand anxiety.

Second are personnel who present mainly bodily complaints, either singly or in combination, such as backache, weakness, giddiness, fainting spells, gastrointestinal discomfort, chest pain, rapid heart action, shortness of breath, painful joints, recurrent headache, and pain with limitation of function following injury or surgical procedure. These individuals stoutly deny having psychological problems and insist that bodily defect or disease is the cause of their inability to function, despite the negative findings of medical evaluation.

The third group includes persons who resort to more or less direct action in evading or attacking the environment and who become disciplinary offenders. These individuals commit military offenses such as absence without leave, desertion, refusal to obey orders, and other nonconformist activities. Here, too, the individual recognizes his inability to tolerate certain situational circumstances but tries to justify his behavior by placing blame on others or upon alleged impossible conditions in the environment. The groups that exhibit neurotic symptoms or bodily complaints are usually a responsibility of the medical services. In combat, neurotic cases have been designated as combat fatigue, combat exhaustion, flying fatigue, or other terms reflecting the nature of causative traumatic situation. The offender group is primarily the responsibility of the command, with assistance from legal and military police agencies. However, in recent years military psychiatry has taken an increasing advisory and treatment role in these cases since fundamentally the majority of military offenders have psychological adjustment difficulties that are similar to neurotic or other symptom disorders.

As one would expect, there are no major differences in military psychiatric problems of the several services. The nature and type of threat, deprivation, or hardship will differ in a sea, air, or ground environment and thus produce specific anxieties and phobias for this or that situa-

tion. However, the basic problem of adjustment to external events produces a similar group of situational disorders.

What are the figures showing the difference between the mental health of those who enlist as against those of draftees?

From available statistical data it is difficult to demonstrate significant differences in mental health between enlistees and draftees. The general impression that enlistees are more prone to have emotional difficulties arises from the fact that volunteers are generally younger and have had less schooling than draftees. The fact that age is an important factor in military adjustment, as well as in adjustment to school and work in civilian life cannot be doubted. The seventeen-to-twenty-year-old male is likely to be impulsive, exhibit immaturity and other characteristics of delayed adolescence, including rebellion against authority, and has difficulty in tolerating frustration or delay in obtaining gratification for his needs. Similarly, individuals who have completed less schooling include a restless and nonconformist group as well as persons with only dull or average intelligence. Conversely, in recent years draftees are not called for induction until they are twenty-two to twenty-three years of age and have had an opportunity to mature, resolve the problems of adolescence, and acquire effective habits of work and study.

Is there a certain kind of person who joins the military services voluntarily?

There is a popular notion that volunteers for the services are generally aggressive, restless persons, adventuresome, and emotionally unstable, who have defied parental and other authority, and were unable to settle down and live a peaceful existence. Undoubtedly, there is such a soldier-of-fortune type of volunteer, but experience indicates that military personnel of this type are relatively rare. Indeed, more than 90 per cent of enlistees and draftees complete their first tour of service without incident and render effective duty. Career military personnel in their second and succeeding enlistments have even fewer behavioral and emotional problems than newcomers to the service. In actuality, many personality types enlist for various reasons. There are recent high school graduates undecided about choice of career who volunteer for a particular branch of the service or for special training, and at the same time satisfy their draft obligation. Often such volunteers become career personnel. Other individuals lacking skills or education find that their desires for improvement can be achieved in

the service. Some enlistees come from unhappy, strife-ridden homes, slum areas, or blind-alley jobs to seek better opportunities for work and living. However, there are instances of men who volunteer for the military services for unrealistic reasons, such as those who seek only escape from parental authority or relief from regular hours of work or marital responsibility, or to correct psychosexual difficulties. There is also the occasional withdrawn, schizoid, or even schizophrenic person who seeks in the service the impossible fulfillment of an active fantasy life. In summary, it can be stated that the vast majority of volunteers mature, acquire skills and responsibility that are useful to them in or out of the service, and in addition find lasting friendships and a feeling of belonging, which are among the characteristic benefits of military service.

What are the chief characteristics of the psychiatric program in the armed forces?

In peacetime, military psychiatry deals with small to medium-size, relatively stable forces chiefly composed of volunteers who are mainly occupied with training activities and infrequently experience abrupt environmental change or danger. Under these conditions the rate of hospital admissions for psychiatric disorders is moderate (eight to ten per thousand men a year). Serious mental disease psychoses continue at the same low rate of frequency but they constitute a higher proportion of psychiatric admissions than during war. However, training is strenuous and tedious, discipline is firm, and supervision is active. Much is expected of the serviceman under "cold war" conditions, for the mission of the peacetime armed services is to be ready to fight at short notice and to serve as a cadre or nucleus to be multiplied many times in the event of general mobilization. As a result, particularly with a high proportion of young volunteers, nonconformist or deviant behavior is more common than psychological or medical manifestations of emotional problems.

To meet the needs of peacetime, two major types of psychiatric facilities have been created that are modified according to the special requirements of the army, navy, and air force, as follows:

Local Psychiatric Facilities: These psychiatric units, often termed Mental Hygiene Consultation Services (M.H.C.S.), are established at almost all medium or large military bases, and function mainly as an outpatient activity. The staff usually includes psychiatrists, psychiatric social workers, clinical psychologists, enlisted assistants, and clerical

personnel. The post M.H.C.S. is located near troop concentrations and functions much like a community mental health clinic in civilian life. Referrals are derived mainly from unit commanders and post dispensaries. Other sources are legal and disciplinary agencies, chaplains, the Red Cross, family, and self-referrals. Military personnel are seen for evaluation and treatment on an outpatient basis and thus are maintained on a duty status. Personnel of the M.H.C.S. try to achieve close liaison with the sources of referral, particularly the military unit, in order to obtain collateral information and transmit findings relative to recommendations as to management of individual cases.

Of special importance is the work of the M.H.C.S. at recruit-training centers. Here psychiatry tries to aid the trainee who is having difficulties in the transition from civilian to military life, by employing various techniques, such as counseling, casework therapy, and individual or group psychotherapy. Individuals who are found to have little or no potential for effective military service are recommended for early discharge. Similar outpatient services are provided by the M.H.C.S. units at other military bases.

General Psychiatric Facilities: This refers to the neurology and psychiatry services of military general hospitals which may vary in size from 50 to 250 beds and are equipped and staffed to diagnose and treat severe mental disorders and difficult neurological problems. All the usual forms of psychiatric treatment are employed, such as drugs, electroshock, psychotherapy, and milieu therapy, along with the supportive occupational and recreational therapy. Consultation services are also provided for referred outpatients as well as inpatients from the other clinical services of the general hospital.

What psychiatric services are there for families of servicemen?

It should be noted that since World War II the proportion of married servicemen in the military population has steadily increased, particularly among career personnel. Consequently, there has been a rising demand for psychiatric outpatient and inpatient care for women and children. Local military psychiatric facilities have tried to meet this need, especially at military bases where civilian psychiatric resources are sparse or unavailable. In recent years military psychiatry with its orientation toward social psychiatry has come to consider and treat the family as a group in action with interpersonal and intragroup difficulties rather than focus attention upon the internal conflicts of a single family member who has been referred for symptoms. Regardless

of the theoretical issues involved, the practical limitations imposed by the scarcity of psychiatric personnel preclude the utilization of an individual therapist for each referred family member. As a result, military psychiatry has placed increasing emphasis upon the utilization of family therapy, marital counseling, and other forms of group therapy.

A common operational method of the military M.H.C.S. based upon dealing with male psychiatric problems is the consultant technique. Here psychiatric personnel serve in an advisory capacity to the using agency, e.g., the unit commander. By this technique psychiatric personnel indirectly influence the management and environment of mal-adjusted individuals.

For more acute severe mental diseases of adult dependents, such as schizophrenia and severe depression, hospitalization can often be accomplished at either local or general military hospital facilities. In locations where military psychiatric facilities are not available, several weeks of emergency hospitalization in civilian hospitals is permitted under the Medicare Law [Public Law 569] for acute emotional disorders that threaten life, health, or well-being.

The extended residential treatment of serious mental retardation or mental disease in children of servicemen is not available in military facilities or permitted under the Medicare Law. Such cases must be placed in appropriate civil institutions.

What psychiatric services are there for women members of the armed forces?

Women members of the armed forces account for a small minority of service personnel (6 to 8 per cent) during peacetime, being mainly composed of enlisted and officer personnel of special corps in the army, navy, and air force along with a lesser number of officers primarily in the allied medical specialties of nursing, physical therapy, occupational therapy, and dietetics. Because of their small numerical strength, servicewomen constitute only a modest work load in military psychiatry.

Special female military psychological problems occur most commonly during transition from civilian to military life in the initial or basic training period. During basic training the new servicewomen first encounter military discipline, the relative lack of privacy in barracks living, unaccustomed rules of work, and living conditions and other features of existence more generally found in a purely masculine cul-

ture. It should also be recognized that more frequently than their male counterparts, women volunteer for service as an escape from unhappy life situations or for more romantic or sentimental reasons. Moreover, there is as yet little community or cultural approval for young women choosing military service, which is commonly viewed as a masculine career in contrast to nursing, teaching, domestic, and other similar pursuits that are commonly agreed upon as suitable feminine vocations. For the foregoing reasons, losses of female personnel in the initial training phase, because of unsuitability for service, is usually several times that of male basic trainees.

After training and assignment to various duties that are usually similar to feminine occupations in civilian life, such as clerical, laboratory, and nursing positions, the majority of the female servicewomen make fairly good military adjustment.

What psychiatric services are there for overseas personnel and their families?

Psychiatric services for overseas personnel and their families are comparable to the previously described program in the continental United States with modifications based upon troop distribution and differences in geographic location, culture, and environment. Overseas local psychiatric facilities include mental health units in each infantry, armored, or airborne division that function much like the mental hygiene consultation services of military bases in the United States proper. However, divisional troops are usually deployed over a wide geographical area, which makes necessary considerable travel by divisional psychiatric personnel or their dispersion in order to render adequate service.

Local psychiatric services are also included in the military medical facilities that provide hospitalization and other medical services for military personnel and their dependents. Here, as in the United States, psychiatric activities are mainly of an outpatient type with capabilities for hospitalization of psychiatric emergencies. Severe mental disorders or difficult diagnostic problems that require long hospitalization are evacuated to general psychiatric facilities usually located at overseas general hospitals. Patients who cannot be improved or returned to duty within a three-to-four-month period are further transferred to general psychiatric facilities in the United States for treatment and eventual disposition.

Special problems encountered in overseas personnel during peace-

time involve psychological disorders precipitated by separation from home and families. For some servicemen such a separation constitutes an added adjustment problem, produced by realistic difficulties of illness, finances, or legal problems, which can usually be satisfactorily resolved by emergency leave, reassignment, or aid by service welfare agencies. More frequent is the serviceman who is overly dependent or possesses neurotic personality traits that make him vulnerable to the removal of supports from home or previous associates. Manifestations of this separation syndrome vary from nostalgic depression to deviant behavior and excessive alcohol intake.

No unique problems are encountered in dependents of overseas personnel. However, overseas family members must rely upon each other to a much greater degree than in the United States, where there are more opportunities for community support and aid by friends and relatives.

Usually overseas families respond to living in an unfamiliar country by grouping together and achieving greater cohesiveness than previously. Husband, wife, and children aid each other in overcoming environmental change and hardships. However, in families with continued disharmony, little love, and hostility, enforced association and lack of outside outlets provide a situation that not infrequently produces anxiety symptoms or behavior problems in the wife or children. Because there are usually few or no civilian psychiatric facilities available in an overseas area, the entire burden of caring for psychiatric problems of dependents falls upon military psychiatric facilities. As stated before, these problems are handled on a family basis with marital counseling and group therapy being the major forms of treatment.

What are the chief characteristics of the military psychiatry program during war?

During war, military psychiatry is involved with the induction and training of vast numbers of new personnel and with their later overseas and combat adjustment. Psychiatric programs are developed along three lines of endeavor as follows:

- 1) Screening and induction centers aim at the rejection from service of individuals who have overt mental defects and disease. Experience in World War II demonstrated the unfeasibility of rejecting potential psychiatric problems and the futility of prediction by interview technique of the future behavior and effectiveness of individuals for circumstances that cannot be determined at the time of examination.

2) Local psychiatric facilities (Mental Hygiene Consultation Services) at training centers are expanded in order to render advisory and treatment services for the large influx of draftees and enlistees. General hospital facilities are also expanded to receive severe mental disorders that inevitably are found in new military personnel.

3) For overseas and combat theaters of war the psychiatric program includes several echelons of care. In the combat zone, divisional psychiatric units receive and treat psychiatric casualties within the forward area. The division psychiatrist also serves as the mental health officer of the division, advises the division surgeon as to measures of preventive psychiatry, and orients other medical officers of the division in the early recognition and brief treatment of psychiatric disorders. The forward level of psychiatry is supported by provisional psychiatric field units that are located at the level of field or evacuation hospitals. These units are staffed by psychiatrists, social workers, psychologists, and enlisted assistants, and receive psychiatric casualties that cannot be treated in the forward area. They serve as an alternate forward treatment center when the divisional psychiatric units cannot function or hold patients because of tactical reasons and also operate as the psychiatric treatment facility for combat support troops that do not have assigned psychiatric personnel. Finally, psychiatric care is provided in the communication or base zone by more or less fixed hospital installations. These general type psychiatric facilities receive the more severe mental cases evacuated from the forward zone. Previous experience indicates that over 90 per cent of psychiatric casualties can be salvaged for duty within the forward and rear zones of an overseas combat theater.

What were the rates of psychiatric breakdown in the military services during World War II?

Statistical data of psychiatric disorders, particularly during wartime, must be interpreted with caution because the same individual may be hospitalized on more than one occasion, or there may be multiple hospitalizations in which mental illness may or may not have been the major reason. In addition, psychiatric disorders during World War II were frequently masked by vague disease diagnoses, such as lumbosacral strain, cephalalgia (headache), or arthritis.

With this in mind, it can be stated that hospital admissions for primarily psychiatric disorders in the United States Army rose from a peace-

time rate of 10 per thousand mean strength in 1939 to 38 per thousand in 1943 and 1944. Stated differently by W. C. Menninger, Chief Consultant in Psychiatry to the Surgeon General of the Army during World War II, in *Psychiatry in a Troubled World*, there were approximately 1,000,000 hospital admissions for psychiatric illness during World War II, which represented 6 per cent of admissions for all causes; 40 per cent were from troops overseas and 60 per cent from troops within the United States. The 1,000,000 admissions included 63 per cent, psychoneuroses; 6 per cent, psychoses; 8 per cent, psychopathic personality; 10 per cent, neurologic disorders; and 9 per cent, other psychiatric diagnoses.

From another viewpoint, Eli Ginzberg, in "Lost Divisions," from *The Ineffective Soldiers*, citing official sources, gives the following data for army and navy personnel of discharges for psychiatric and behavioral reasons:

Medical discharge	21.6 per 1000 mean strength	438,000
Administrative discharge (aptitude unsuitability)	15.9 per 1000 mean strength	226,000
Undesirable or bad conduct discharge	6.3 per 1000 mean strength	90,000
	Total	754,000

What were the rates of rejection on psychiatric grounds during World War II?

Accurate rates of rejections for psychiatric reasons are also difficult to obtain. It is impossible to determine how many men were screened out in World War II, since many individuals were later accepted after being initially rejected. Also, standards of acceptance for service changed during World War II according to varying needs for manpower. In addition, psychiatric examinations at induction stations were uneven, depending on the number and ability of available psychiatric examiners. Again with the foregoing reservations, Ginzberg gives the following data:

Of approximately 18,000,000 inductees between the ages eighteen to thirty-seven examined through August 1945, 29 per cent or 5,250,000 were rejected.

19.3 per cent for physical defects	3,447,000
5.4 per cent for emotional disorders	970,000
4.0 per cent for mental or educational deficiency	716,000
0.5 per cent for moral reasons (nonmedical)	87,000

What were the rates of rejection during the Korean War?

Rejections during the Korean War cannot be properly compared with rejections during World War II because of changes in standards for physical and mental fitness. In the Korean War all inductees received a mental qualification test (Armed Forces Qualification Test—A.F.Q.T.), which was much more uniformly applied than various intelligence tests of World War II. Also, neither psychiatrists nor other specialists were assigned to induction stations. Provisions were made for consultation by specialists including psychiatrists in suspected cases, but they did not routinely evaluate all individuals as was usually the case in World War II. With the above differences and recognizing that information in this area is available only from that segment of the American male population that was examined at armed forces induction stations, Bernard Karpinos gives the following statistical data based on experiences from July 1950 through July 1953.

Qualified	76.4 per cent
Disqualified	23.6 per cent
	2.6 per cent, administrative (essentially moral reasons)
	7.9 per cent, mental test failure (A.F.Q.T.)
	1.8 per cent, combined medical and mental test failure
	11.3 per cent, medical only

Individuals disqualified for psychiatric disorders were 18.6 per thousand examined or 1.86 per cent, which was similar to the rejection rate of World War I and much lower than that of World War II as given above by Ginzberg (5.4 per cent). However, it should be noted that rejections for mental or educational deficiency in World War II were 4 per cent as compared with 7.9 per cent in the Korean War. It is logical to assume that many of those rejected for educational or intellectual reasons during the Korean War were similar to those included under the psychiatric rejects of World War II. When rejections for both psychiatric reasons and lowered intelligence are compared, it is interesting to note that the total rates of 9.4 per cent for World War II and 9.7 per cent for the Korean War are quite comparable, which indicates that in both wars rejections for overall mental reasons were similar.

What are the current rates of rejection?

Current rejection rates for psychiatric disorders are similar to those that prevailed during the Korean War, or approximately 2 per cent.

There are somewhat more individuals being rejected for educational or mental deficiency (failed mental test only), but this is due to a change in standards in which a new category (trainability limited) has been established since August 1958. This change would be eliminated during a wartime period and is currently employed only to obtain individuals who are capable of receiving training of a more complex type.

How many people are served by military psychiatry?

The following groups are eligible for care by military medical facilities, which includes military psychiatry:

1) Uniformed members of the armed forces on active duty. This group numbers approximately 2,500,000.

2) Dependents of military personnel on active duty are entitled to outpatient and inpatient care on a facilities-available basis.

3) Retired personnel and their dependents are eligible for medical and psychiatric care on a facilities-available basis; however, domiciliary care for chronic or custodial patients is not provided in military facilities.

4) In various overseas areas, state department personnel and civilian employees with the armed forces receive medical care as required.

5) In a few cities in the United States where Veterans Administration facilities are not available, medical emergencies including psychiatric disorders are provided hospitalization for brief periods until such cases can be transferred to V.A. facilities; however, outpatient treatment for veterans is not authorized.

6) In all, between 5,000,000 to 6,000,000 persons are served in whole or part by military psychiatry.

How many psychiatrists and other mental health personnel are there in the program? What are their specialties?

The number and type of psychiatric personnel in the armed forces vary for each branch of service (army, navy, and air force) and also vary in proportion to the size of the military population. In general, there is one psychiatrist for each 4,000 to 5,000 servicemen. Thus, when the army total strength was 870,000 there were approximately 175 army psychiatrists. Psychiatrists in the navy and the air force have a somewhat lesser proportion of psychiatrists to military strength.

There are approximately two-thirds as many officer social workers (graduates of approved schools of social work) as there are psychiatrists. This group includes civilian psychiatric social workers on full-time

employment by the services. The navy does not commission social workers, but utilizes full-time civilian graduates of social work.

There are approximately one-third as many clinical psychologists as psychiatrists. The number of psychiatric nurses has been reduced with the decrease of inpatient hospitalization in favor of outpatient treatment. In the army their number is between 50 and 75.

In addition to the above officer psychiatric personnel, there are enlisted assistants in social work, psychology, and as ward attendants. Their number varies considerably, but in general there are approximately two to three social work assistants for each social work officer, two to three psychology assistants for each officer clinical psychologist, and two to three psychiatric ward attendants for each psychiatrist.

What is the record of success of psychiatric treatments given in the armed forces?

For patients with serious mental disorders (psychoses) who are transferred to neuropsychiatric treatment centers at general hospitals, a satisfactory remission of symptoms is achieved in over 90 per cent of patients. It should be recognized that these patients are generally young and the illness is of acute duration and offers a reasonably good immediate prognosis. For outpatients with less serious neurotic illness or personality disorder the objective is the resolution of the situational problem and the attainment of effective performance of duty. This is achieved in the majority of cases. Individuals who have serious personality disorders with little potential for military service are usually discharged from the service to permit adaptation in a less stressful environment. Results of treatment of psychiatric casualties in combat indicate that approximately 50 per cent to 60 per cent can be restored to an effective combat duty status, and that 25 per cent to 35 per cent can be improved enough for duty in a noncombat overseas assignment.

What kind of treatment is provided and available when needed after discharge from the service?

Discharged military personnel are civilians and thus become the responsibility of the Veterans Administration, provided their medical condition is considered service connected. Individuals whose mental disorder is independently judged by both the military and the Veterans Administration to have existed prior to service are not entitled to treatment by the V.A. except as may be given any indigent veteran on

an inpatient status when such facilities are available. Outpatient treatment by the V.A. for nonservice connected cases is not authorized.

How does military psychiatry contribute to general research in human behavior?

Because military personnel experience situational change, particularly the changes that involve so-called external stress such as combat, separation from family, climatic extremes, new associates, and the like, a clear demonstration of the influences of the environment and the group upon the individual is available. The reactions of human beings and the mechanics of adaptation are perhaps more clearly observed by military psychiatrists than their civilian colleagues. Military conditions also demonstrate the remarkable capability of individuals to make a successful adjustment. In actual practice various methods of treatment can be rapidly evaluated. For example, group therapy techniques have become greatly stimulated and elaborated as a result of wartime experiences, and techniques of prevention have been established that utilize epidemiological methods and the influences of leadership and group cohesiveness in achieving satisfactory adjustment.

Is there a program for prevention of mental and emotional disorders among military personnel?

Yes, prevention consists of two types: primary and secondary.

In primary prevention, attempts are made to favorably influence the conditions under which military personnel live, work, or fight, so that there is less likelihood of disabling maladjustment. In this area the staff advisory function of the military psychiatrist is of major importance in such matters as personnel policy, selection of criteria for induction, rotation of troops in combat, early recognition and treatment of military offenders, accident proneness, and the morale difficulties of particular units. An invaluable tool of the military psychiatrist is the epidemiological approach. By this technique of preventive medicine, the psychiatrist can demonstrate significant differences in the frequency of noneffective behavior in units of a post or division that are apparently exposed to the same environmental hazards and hardships. These data represent questions that immediately focus the attention of senior commanders upon situational circumstances that could account for such differences among units.

Secondary prevention includes the early recognition and prompt management of emotional or behavior problems on an outpatient basis

while the involved individual, still a member of his unit, struggles to cope with his situation. Resolution of the problem at this point prevents the formation of fixed or chronic disorders. Activities in secondary prevention are carried out by outpatient psychiatric units (Mental Hygiene Consultation Services) that utilize early case findings in close liaison with military supervisors.

Can better pre-induction testing screen out those most susceptible to disorder?

From a theoretical standpoint it would seem possible to identify by psychiatric examination, psychological testing, and collateral background information such as school, work, and other data, the individuals who are most susceptible to mental disorder. From a practical standpoint, however, experience indicates that psychiatric evaluation and psychological testing, while capable of identifying overt illness, are not sufficiently accurate to identify potential breakdown, particularly when later events such as assignment, types of associates, particular environment, and the types of strain or stress to be encountered are unknown.

Collateral information on work and school are relevant to later performance, and here again information is one of a range of probability rather than practical utilization. If only a small armed force is required, high school graduates as a group will give a higher performance than those who completed only part of high school, and the latter group will do better than grammar school graduates. However, even eighth grade graduates will give an 80 per cent effective performance, and must be utilized during war when large forces are needed.

In war, individuals with a potential for effective service must be accepted, rather than all individuals with a potential for breakdown excluded. It should also be recognized that World War II demonstrated that many men who gave superior service gradually became non-effective under the impact of repeated and prolonged battle conditions. Indeed, in war, one must be prepared to accept psychological casualties as well as physically injured casualties.

Experiences in the Korean War have demonstrated that when individuals with overt mental illness were rejected, the subsequent rate of psychiatric breakdown was moderate and even lower than in World War II when there was a rejection of large numbers of persons with a potential for neurotic disorders that was of such magnitude as to perhaps influence the motivation of those who were accepted and retained

for service. The vague demarcation between those rejected and those accepted was difficult for the civilian community to accept or to understand. Regardless of these considerations, the rejection of all potential psychiatric disorders envisions an unlimited manpower supply, which is obviously an unrealistic assumption.

Based on current studies, what can be predicted about the scope of military psychiatry in the near future?

Military psychiatry continues to develop, elaborate, and refine the mental hygiene unit approach. In its efforts to find the natural causes of maladjustment that includes disciplinary offenses, military psychiatry is looking for even earlier case finding and techniques of aiding the individual in mastering situational stress circumstances. Closer liaison with the using agencies is being employed, and efforts to determine the circumstances that are pertinent in producing mental breakdown are being identified and alleviated. Current studies on the natural history of military offenders are in process so that preventive measures can be taken. Similarly, intensive work is being accomplished to perfect methods of brief psychotherapy and group therapy so that they will be more effective. For serious mental disorders such as schizophrenia, milieu therapy of small groups under intensive twenty-four-hour therapeutic regimen is being tested in several neuropsychiatric treatment centers with a view toward providing a more permanent remission of symptoms in young soldiers so that they can be restored to duty status.

MIND

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What do we mean by the word "mind"?

The word "mind" can and does mean a number of things: memory; recollection; reason (distinguished from will and emotion); the sum total of human experiences; or the soul.

Can we use "mind" and "soul" interchangeably?

"Soul," as in "What a good soul he is!" or "aesthetic soul," or "pious soul," or "scientific soul" refers to a certain bent which the knowing being has acquired.

But "soul" has also been used, especially by some philosophers and theologians, to refer to a permanent dimension of mind. You change your mind, your knowledge, and your attitudes, but not your soul, which is unalterably present in changes of mind. Thus, the soul is often held to be everlasting and immortal though the mind and body cease to be. Many scholars today, however, use the two terms interchangeably without prejudice to the question of immortality.

Is the mind the same as memory?

The mind could not know without remembering the past, relating it to the present, and anticipating the future. The amazing thing is that the mind can remember across gaps, like sleep and unconscious states. But knowing is much more than remembering.

Is the mind the same as thinking?

When the mind relates or connects its ideas so that a problem is solved, the organization of memories and ideas is involved. Thus: "That is my hat" is mainly remembering. But, answering the question: "How do I make this hat look better?" involves thinking, for ideas are related in a new way with reference to a purpose. Without being able to remember one could not think, but when one reorganizes his memories and ideas he is usually gratifying some desire, feeling, or want. Thinking involves selecting in accordance usually with a desired end. Mind,

then, involves at least remembering, thinking, desiring, feeling, and willing.

Do "mind" and "person" and "human mind" refer to the same thing?

"Person" usually refers to the kind of mind that not only can sense, remember, desire, and feel (as animal minds do), but one that can also think in accordance with logical principles and conscious purposes. Persons also develop symbols and words to stand in place of experiences and can then plan their actions for situations thought of, but not occurring. Thus, persons can develop and guide themselves by ideals. A person, therefore, is not only a thinking (reasoning) being, but also a moral, aesthetic, and religious agent. "Person" and "human mind" are synonymous.

To summarize: the human mind is the kind of continuing unity which through sensing, remembering, thinking, feeling, desiring, and willing, is able to learn and develop customs, ideals, and institutions by which people solve their own problems and by which they teach their children.

Is mind the same as body?

This is a very controversial question. Most people do not identify themselves only with their body and the space it takes up. They are conscious of ideals, of obligations, and of values, which they consider as much a part of themselves as their bodies (even more so, sometimes). While this statement would be challenged, we might strike a balance by saying, on the one hand, that the mind is not identical with brain and body, much as it is affected by what goes on in the body; on the other hand, by saying that the brain and body are influenced by the mind seems clear from the fact that ideas and ideals affect what we say and what we do with our bodies. The human being at any one stage of his life is what he is because of the interaction between his mind, body, and total environment.

Do philosophers and psychologists use the word "mind" in the same sense?

In the first place, there are great differences among philosophers. The view of mind (suggested earlier in this article) that attempts a balance, would find wide agreement at some points, but not at others. Plato, for example, held that the mind is indestructible and nonbodily, existed before this life, and exists immortally. While many philosophers

and theologians (Aristotle, Saint Augustine, Thomas Aquinas, René Descartes, John Locke, Gottfried von Leibnitz, George Berkeley, Immanuel Kant) accepted this general view that the mind or soul is not identical with the body, and is immortal, they denied that it existed before this life. Such thinkers also held that the mind is itself unchanging even though its states change. The main opposition to this view came from "materialistic" philosophers like Democritus, Epicurus, and Thomas Hobbes. They held that the activities of "mind" are different from the processes that go on in the body and brain, but that they cannot exist without the brain and are essentially "material." Other philosophers (like Plotinus, Baruch Spinoza, Georg Hegel, and Shankaracharya) held that the human mind is simply a mode, a center, or a focus of the divine Mind, and that it cannot exist by itself.

In other words, among philosophers there are roughly five main views: the mind is reducible to, or an emergent from, the body; the mind is nonbodily, "nonmaterial," and not destructible by nature; the mind is "nonmaterial," created by God in relation to a body but sustained by God and granted life after death; the mind is never more than a collection of states developed in this life by a certain kind of body, and restricted to this life; the mind is a focus or mode of the One Mind and has no independent existence and continuity apart from that One.

Psychologists, psychiatrists, and psychopathologists, if pressed, would probably express opinions that would fall into one of these broad classes. But because there is so much philosophical and theological disagreement, they have "professionally" left this kind of question (about the ultimate nature of mind and its relation to body and to God) to philosophers. They have turned to studying the kind of organization of thought, desires, and behavior developed by an individual in a given social and physical environment. Thus an individual mind, for them, is the way of thinking, feeling, and acting that the individual has developed since birth, that is, his personality.

In other words, "mind," in the philosophical sense, and "personality" can easily overlap. Psychologists have been interested in how and why persons in given societies learn to develop their ways of seeking and responding in their environment. But quite often the emphasis in their studies has led them to take a stand on philosophical questions. Some have stressed observable bodily processes, others, unconscious processes, and still others have thought of the personality as the product of conscious, unconscious, and bodily interaction with the environment.

What does a "sick mind" or "sick personality" mean?

There are many forms and degrees of a sick mind. But when a person thinks certain ideas, performs certain acts, feels certain feelings, and holds rigidly to certain purposes, without reasonable and flexible connection with the world and the people around him, he is probably sick. For example, a sick person may hear noises that are never there, or he may continue to feel persecuted when there is no good reason for accusing others of hostility.

There are different theories about why minds get sick. When a person's body is disabled and there is no physiological or anatomical defect, his trouble may often be traced to the fact that he is using this bodily "illness" to solve some "moral" problem. In hysterical blindness a person's eyes and brain are in good condition; his blindness is caused by some mental disturbance.

Do we use the word "mind" in different senses?

Yes. We say: "What a mind he has!" "What a keen mind (or intelligence) he has!" and "What a brain he has!" In each instance we are referring to a knowing being.

What does "unconscious mind" mean?

Psychologists tend to use this term carefully for experiences, desires, feelings, and ideas, which a person cannot remember and which are beyond his conscious control. As I write I am not conscious (unconscious or subconscious) of the color of the paper, but I can easily become so. Again, I am unconscious of my gestures, but I can become conscious of them. The notion of "the unconscious," especially as developed by Sigmund Freud, explains the fact that some ideas, feelings, and desires seem to be having an effect on one's conscious life and behavior, which the individual himself cannot recollect and which therefore are beyond his conscious control. (See *The Unconscious*)

MOBILITY AND MENTAL HEALTH

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Do people who have moved from one country to another tend to be mentally healthier and tougher than other people, or do they tend to have more mental illness? What are the reasons?

Immigrants are usually more, and not less, liable to mental illness than people who have not migrated, whether one assesses mental illness by admissions to mental hospitals or by the frequency of lesser complaints and disturbances seen at psychiatric clinics. However, this is not an invariable finding, and the reasons for it are not fully agreed on. In North America the difference between foreign-born and native-born rates of admission to mental hospitals has been steadily declining during this century until (with local variations) it has now almost disappeared, and elsewhere immigrant groups may actually have lower rates than the native-born groups.

The most plausible explanation for the greater liability to mental illness is that the social changes involved in moving to a new country, even temporarily, constitute a mental strain that is too heavy for some individuals. Certainly this would seem to be the most likely explanation for the raised frequency of the lesser mental disturbances in the early years after arrival and their disappearance with longer residence. But it must not be forgotten that many immigrants have tended to be of a lower-than-average socioeconomic status and to be found especially in the slum districts of large cities. Low socioeconomic status and slum residence are accompanied by higher rates of mental disorder even for the native-born section of the population (See *Social Factors in Mental Illness*), and it is not clear whether immigrants show more liability to mental illness than native-born persons of similar status and residence. Moreover, certain mental illnesses, notably schizophrenia, tend to uproot people, so that it has been argued that migrants are likely to contain an excess of individuals in the early stages of such illnesses. Probably each of these factors contributes to the picture, and the de-

creasing difference between immigrant and native-born rates in North America could be attributed, in part, to stricter government screening, and, in part, to a change in the type of immigrant arriving.

Do people who have moved from one community to another within the same country have higher or lower rates of mental disorder than people who do not move?

The picture here is more complicated. People who have moved to New York State from elsewhere in the United States have much higher mental hospital admission rates than the people born there, but in Texas no such difference appears. In France, movement into the Paris area seems to be associated with higher rates, but in Norway the mobile section of the population has lower rates than the nonmobile. Movement into capital cities or into great metropolitan areas appears to be associated more with high rates of mental disorder than does movement to other areas, but we do not know to what extent this is due to the attraction and availability of better psychiatric services in the metropolitan areas. Probably the same factors apply here as apply to movement between countries, but they are more likely to be overshadowed by other influences. People move for a variety of reasons, and with a variety of results, and it seems likely that where a move is realistically planned and adequately rewarded, mental health will improve rather than worsen.

Are some age-groups more vulnerable than others to the strain of moving?

Yes. The most vulnerable are people (of either sex) at the beginning of adult life, and at its end. From the age of about twenty-five to about sixty, the migrant may show less major mental disturbance than the nonmigrant, and young children appear to be little affected, provided the family is kept intact.

What problems does moving create within a family?

Migration, like any change, is likely to create stresses within a family if the decision is taken by one member without considering the others' views. The loss of particular local attachments may lead to resentment, and that, in turn, may threaten family unity even if the resentment is not openly expressed. However, even when the needs of the different family members are considered, and when all agree to the move, migration puts demands on the family's adaptability. In

the interval between being settled in one community and becoming settled in another, all members of the family tend to be short of human contacts and are thus likely to seek from each other the company that they previously found outside. If the family members are able to respond to this demand, obviously the family will become stronger, but if they cannot tolerate the increased contact, or if the situation is not recognized, the family is likely to become disturbed. For instance, if after migration the husband devotes all his time to tackling external problems and hence gives less time to his family instead of more, the other members may become unhappy and the stability of the family may be threatened.

Where migration takes place piecemeal and the reunion of the family is delayed, much greater problems arise, first from the absence of an essential member, and then from attempts to replace that absence. The wife who in her husband's absence must act both as mother and as father to her children may have difficulty in doing this, but may have still greater difficulty in making room again for the father after the family is reunited.

Is it more difficult for a woman to adjust to a new community than it is for her husband?

No. The husband's work may bring him into formal contact with many people, and through this he may more easily find companionship than the housewife who lacks such means of establishing new contacts. However, the position may be reversed, with the wife and children being quickly welcomed by friendly neighbors or prior acquaintances while the husband finds his work situation strange and unsympathetic. Hospital data suggest that men more frequently break down after migration than their wives do, but these data also vary with the situation.

Does moving create special problems for children with regard to playmates, school, etc?

Under seven years of age, children are little disturbed by moving, provided the family is sound, because their play groups are not solidly formed and are easy to join or leave. Above that age, children become increasingly dependent on the society of other children and, conversely, groups become more exclusive and excluding. Thus, the older child moving into a new neighborhood and new school may find himself facing a clannishness and suspicion that he has not yet the self-confidence to penetrate or to ignore. If he does not achieve acceptance by

some group within a limited period, he is likely to become isolated or to find associates only among individuals who cannot really satisfy him. In localities where there is much movement the clannishness of school-children tends to be less, and in the later high school years it becomes possible to leave the adolescent behind with relatives or friends to finish his schooling in peace. Beyond the age of seven, however, it is difficult for a child to enter a new school unless the home is very supportive and secure, and moves at this time should be avoided when possible.

Regarding studies, problems naturally arise from differences in curriculum, but these should be minor provided they are allowed for by the school and, more importantly, by the parents and the child himself. They become serious only when lower performance at the new school is stigmatized as failure.

Is the rate of mental disorder higher in the new suburban communities than it is in older communities? If so, what part does mobility play?

Mental disorder seen in hospitals is generally less frequent from suburban areas than from the centers of cities. However, this is mainly due to social class differences, since the suburbs tend to contain disproportionately few members of the social classes that are most vulnerable to mental disorder. If such class differences are allowed for, and if lesser mental disturbances and symptoms are counted, new suburbs do appear to have relatively high rates of disturbance. For instance, an investigation of a new housing development outside London (England) found the incidence of many types of mental disturbance, both major and minor, to be much higher than the national average and probably higher than in the part of central London from which most of the people came.

It is uncertain to what extent this type of finding arises from moving the home, to what extent it arises from situations within the suburbs themselves, and to what extent it may be connected with the social striving that a move to the suburbs often reflects. If suburban life makes it necessary for a person to spend more time traveling to and from work, and hence to have less time at home, other members of the household may suffer from insufficient attention and as a result may show some disturbance. In addition, if a suburban community is disproportionately comprised of young married couples, the fact that most of them are facing the same problems at the same time may exaggerate the importance of these problems, and thus breed anxiety. However, even

when the suburban community forms a balanced society, with local employment, suitable mixture of ages, etc., it is possible that some mental disturbance may arise from the moving itself. Because the move from city to suburb seems so short, the person who is moving may not realize that many incidentals of his former surroundings will be left behind. Most people can replace these quickly enough, but some individuals get so attached to certain habits or ways of living that the loss is far more disturbing than they had anticipated. It is such people, when they move without sufficient thought, who probably increase the rate of suburban mental disturbance.

What special problems does moving create in a person's job situation?

The main problems arise not so much in connection with the person's actual work tasks as in the social situations surrounding those tasks. Any newcomer is likely to be given careful explanation of his job tasks and is likely to be given time to adjust to any differences between his former work practices and the new ones. In the many aspects of work life around the new job tasks, however, there can be special situations that no one bothers to explain and, consequently, the newcomer will make mistakes. If he or the persons around him are alert and learn from these mistakes then all is well, but if the mistakes are not recognized and the reasons faced up to, irritation may mount, the mistakes may be attributed to stupidity or "cussedness," and the newcomer may misinterpret innocent misunderstandings or corrections as personal slights.

However, problems also arise from the newcomer's often unconscious reluctance to accept his new social situation and to fit in. Still doubtful as to whether the move from his old home was wise, he may hold back from accepting his new companions too easily, and he may instead try to find reasons for not joining their way of life. He may tell himself that he is better than they are and may try to demonstrate it, with the result that he either arouses resentment or overtaxes himself and neglects his other needs. These other needs, in turn, may tax him more than he realizes, so that his work is less efficient than he expected, thus arousing fears of failure. After moving it is always necessary to allow for possible social misunderstandings and for reduced work efficiency, though both may be of very brief duration.

Do problems associated with moving increase with distance?

Yes. It is usually easier to adjust to a move if friends and relatives remain within visiting distance. Greater distances usually mean greater

social differences. The type of misunderstanding mentioned in the last answer is less likely to occur if one moves within the same city than if one moves to another state. If, moreover, one moves to another country, there is not only misunderstanding to cope with, but the absence of many things one had taken for granted. Of course, social differences do not always parallel geographic distance, and short moves may be deceptive in that they may lead one to expect no problems at all. But, broadly speaking, social differences do increase with distance, and when these differences are excessive the risk of "culture shock" or the problem of acculturation arises.

What is the "culture shock" that people are said to experience when transferred abroad? Does it depend on expected duration of stay, or on whether the move is voluntary or forced?

"Culture shock" is a term sometimes used for the anxieties that may affect a person if he is suddenly shifted to a country where most of the familiar aspects of life are different—faces, food, language, social conventions, etc. People depend more than they realize on the regular appearance of apparently trivial things around them, and unthinkingly may assume that these are "natural" accompaniments of human life anywhere. When many of these familiar objects and practices are removed and replaced by unfamiliar ones, there may be both a sense of loss and an insecurity, the insecurity arising from the fact that life appears less reliable than formerly, and from our ideas about our former way of life being called into question. Most typically, the person who is affected is the one who is not much interested in the overseas country except as a place in which to do a particular task, is not accompanied by a considerable number of his own people, and is not well informed on the variety of practices and beliefs that the world holds. People planning permanent resettlement are usually less affected, since generally they will have chosen the country carefully and will have studied all the available material on that country. (In the past, refugees, who often had little choice as to which country they could go to, were quite susceptible.) Where the overseas stay is expected to be quite short, most individuals are able to ignore the local conditions that could disturb them. However, some persons living overseas experience anxiety and symptoms merely as a result of their realization that foreigners live differently.

The symptoms of culture shock vary with the individual's background, but usually include irritability, an exaggerated concern with

minor medical problems, and hostility toward the host country. People from the United States tend, additionally, to be exceedingly concerned with cleanliness, the safety of drinking water, the obtaining of American-style foods, and the risk of being touched by ordinary people of the country. As a result, they avoid contact with local nationals, idealize their homes in the United States into a utopia, and blame any illness or symptoms on the local conditions.

The number of individuals who develop all or most of the characteristics of culture shock is quite small, and with proper selection and education of personnel for overseas posts it could be very much smaller. For most people, however, sudden immersion in a foreign environment is likely to give rise to some unease during an adjustment period.

What can a family do to prevent or reduce problems that might lead to mental disorders when it moves? Is it possible for a family that has moved several times to learn better ways of adjusting and thereby to improve its mental health?

It is a broad principle in mental health that the more a person has successfully learned about ways of tackling human problems, the less likely he is to become mentally disturbed by some future problem. The learning, of course, must not overtax him, and earlier problems should be mastered before further ones are tackled; but, in general, it can be said that a family that has successfully mastered ways of adjusting to moving is likely to be *improving* its mental health in the process, provided the family has also adjusted to settling down.

The first principle about planning a move is to obtain as much information as possible. An important source of frustration and anxiety in moving is a situation where the new conditions do not come up to expectations, and this can largely be avoided by basing these expectations on accurate information. At the same time, the family must have a reasonably clear idea about what it wants and what various members need. It is not essential that the whole group move together, and it may be advantageous for one member to go ahead to prepare for the others; but the separation should not be long and the timing of the move should be such that enthusiasm for it is encouraged and not allowed to be frittered away in delays. Certainly, small children should not be separated from the main body of the family at this time. Dutch experience with flood evacuees showed that such children fared better when they shared the hardships of their families than when they were taken to more comfortable quarters elsewhere.

Immediately after the move, the important thing is to allow time for adjustment by taking on as few work commitments as possible in the early months, arranging for the family to be together and to explore together as much as possible, and being tolerant of mistakes or misunderstandings. Social contacts should be actively sought through churches, clubs, and neighbors, but the most rapid method of establishing new contacts is by seeking out newcomers like oneself and trying to help them. In this way a compromise can be arrived at that will give time for the main task of deciding in what ways local life differs from that which one was used to, and to what extent one should abandon one's old habits and take on new ones. If this is not faced up to, and if social differences between the old and the new community are marked, what has been called "culture conflict" is likely to arise within the family, inasmuch as children acculturate more rapidly to local society than do their parents.

What is meant by acculturation, and what importance has it for mental health? After moving to a new country, is it best to acculturate rapidly, slowly, or not at all?

Acculturation is the adoption of the values, beliefs, and basic ways of life of the society into which a person moves, and it usually implies the abandonment of competing values, etc., from the society in which one grew up.

If a person does not acculturate, he will probably always be regarded as a stranger and hence will never achieve the warmth of social contact with his neighbors that would otherwise be possible. If he does acculturate, he will usually become a stranger to his relatives and friends in his former society, and he will find it difficult to rejoin that former society. Moreover, the process of replacing old values by new ones is not likely to occur without some mental unease or sense of guilt, and may be accompanied by a sense of loss of identity. The dilemma can be avoided for a whole generation if there are sufficient people from the same background to form their own community within the new one, but the children must usually go to outside schools and then they will face special problems.

Mental health can benefit from this situation insofar as the person can exercise the increased freedom of choice to create his own private system of values and beliefs; provided the community permits him that freedom. Often the choice is not free, however, for some communities do not permit one to remain different (criticizing the speaking of a

foreign tongue in public, for instance) while others will never accept the idea of a foreign-born person being anything but a stranger. In these instances the problems that the individual or family must face are likely to be harmful to mental health. Other things being equal, it is probably best to acculturate slowly and deliberately, accepting the idea of being a stranger but seeking to identify with the new community as far as is consistent with one's personal ideas and beliefs.

What can a community do to ease the adjustment problems of a newly arrived family?

Obviously, it helps the peace of mind of the newcomers to be shown that they are welcome and to be given assistance in the first days. It is very helpful to a mother at such times to be temporarily relieved of the care of small children, and helpful to the whole family to have neighbors drop in to take members along to local groups—Boy Scouts, church guilds, bowling, etc.

It is also helpful to make clear to newcomers what the local customs are and what is expected of people. For example: Are acquaintances invited into one's house or are only old friends invited? Are children free to play with the youngsters *they* find, or are there social divisions to be observed? Can an unaccompanied person go to a dance? Are married women looked down on if they take paid work, or looked down on if they do not?

Residents of a community can also help newcomers by being ready to accept and tolerate neighbors even when they do not respond to kindnesses and invitations. The newly arrived family may not yet be ready to enter fully into community life, especially under certain conditions. If the move has been a forced one, as with refugees or a man losing his job, the family may feel resentful at the way life has treated them and this resentment may spill over onto the receiving community.

Above all, the community should be ready to accept the differences that the newcomers show, neither expecting them to become the same as their neighbors nor pushing them into a corner because of these differences. Somewhere in the different background that the new family possesses will be some knowledge or characteristic from which the community can benefit, and the newcomers' realization that the community appreciates this can make adjustment much easier.

MORALS, VALUES, AND MENTAL HEALTH

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What are values? What is their purpose?

There are many definitions of values. The English word "value" comes from the Latin verb *valere*, to be strong, or to be worth. The word has become a technical term in many disciplines. In economics it refers to purchasing or exchanging power, and price of an article. In art it designates the degree of light or darkness of any part in relation to its whole. Musicologists mean by it the time length of a tone. Moralists and ethicists take "value" as a standard or norm of goodness, desirability, and propriety. Philosophers have great interest in values, often starting with the consideration of value in ethics, aesthetics, mathematics, etc., and then trying to define its essence. Hence the difficult metaphysical questions about the nature of the existence of values: Do they have objective existence (e.g., the Platonic ideas of truth, goodness, and beauty), or do they only function subjectively as an individual's or a group's way of valuing this or that experience as good or bad, beautiful or ugly, pleasant or painful, interesting or boring, likable or hateful? Typical philosophical questions about values include: What is the mode of existence of any norm? How can the validity of values be asserted? Are all values ends in themselves or are some values instrumental? Are values absolute or are they subject to a natural or cultural birth, growth, decay, and death? Friedrich Nietzsche proclaimed the need for a "transvaluation of values," finding periodic revisions of prevailing values necessary. Theologians are likely to relate values to divine revelations or commands (the Ten Commandments, the Law of God, Jesus' Sermon on the Mount).

The social sciences study values empirically, which is rather difficult to do, because of their elusive nature. They must be inferred from

behavior. Psychologists who study values must avoid posing as experts on ethics. But clinical psychologists and psychiatrists who help foster change in individuals from sickness to health cannot quite avoid making at least tacit value assumptions. Some of these are that health is better than illness; that pain hurts and its relief is good; that reality adaptation is better than retreat into a world of fantasy; that productivity and creativity are better than laziness; that love is better than hate; that constructiveness is to be preferred to destructiveness.

In regard to the behavior of individuals and groups, values can be defined as normative ideas that guide behavior, as standards toward which one strives, as external or internal control devices. From a clinical viewpoint values may be defined as those directive ideas or estimates on the basis of which one is willing to make the greater sacrifice. Given a variety of opportunities, choices, temptations, and stresses, what rule or order of truth, goodness, beauty, correctness will a person abide by, even under adverse and difficult conditions, in the face of threat?

The purpose of values, seen psychologically, is the control of dangerous or destructive impulses, the harnessing of constructive energies, the socialization of the individual, the clarification of purpose and meaning of life, the setting of goals for behavior, and the fostering of adaptation to complex cultural conditions.

How are values transmitted?

Within a given culture or subculture the prevailing values are transmitted from one generation to the next by a learning process. There is hardly any evidence of values in the newborn child's behavior. Through learning he has to acquire the values of his family and culture. These values are at first imposed upon him from the outside: parents approve of certain forms of his behavior and will reward him for conforming to their standards, while they will also disapprove of another part of his behavior, punishing him for transgressing their standards. The basic teaching scheme consists of all the "do's" and "don'ts" with the implied promise: "I love you" or "I do not love you." Early in life such enforced rules become internalized in the child by his natural tendency to copy, imitate, or identify himself with the parents and other authority figures on whom he depends for love and well-being. This internalization is at first a quite unconscious process. At a later age, the child will become more selective in his identifications and imitate consciously the "shining examples," "heroes," or "models" that he finds in beloved teachers, idolized adults, dearest

friends, historical personages, etc. The total system of values thus acquired acts as an internal regulator of behavior, proceeding often quite automatically, aiding the ego in its functions of judging, adapting, mastery, choosing, and in general, controlling the person's impulses.

Due to the different processes of internalization, two basic value groupings can be recognized: (1) The superego (Sigmund Freud), conscience, archaic conscience (Noel Mailloux), which is the repository of the early "do's" and "don'ts" of life, acquired chiefly by unconscious identifications and, therefore, usually quite firm, forceful, inflexible, and relatively unchangeable; (2) the ego ideal (Freud), system of aspirations, ideology, ultimate goals, and meanings, acquired by predominantly conscious and selective imitations and identifications of a later age, and, therefore, often more flexible, rational, open to scrutiny and to modification.

The two personality structures, superego and ego ideal, assist the ego in controlling the id impulses and in coming to terms with the demands and opportunities of the outer world. But they have some degree of autonomy within the personality and thus demand that the ego conform to their standards under pain of symbolic punishment (guilt feelings) or rejection (shame). What is thus from one viewpoint an aid and an asset to the ego, may from another viewpoint be a threat, liability, or difficult complication.

Though little is known about the earliest, neonatal beginnings of value learning, there is an increasing tendency to assume that some primitive superego nucleus may be present from birth, which becomes functional and articulate through learning and acculturation. On the whole, however, psychiatrists and psychologists will emphasize that an individual's values are acquired by learning, as opposed to the view of some philosophers (Immanuel Kant) and theologians who assume that the essential value distinctions, moral law, "image of God in man," etc., are part of man's natural makeup, and an antecedent to learning.

What is a value hierarchy and how is it acquired?

While values tend to be absolutistic (their "ought" or "must" character) and strive toward being upheld and enforced, it is evident that individuals and groups are governed not by one value, but by a plurality of values. Life is full of choice situations, many of which consist of a choice among various values held in esteem by the individual and thus demanding his loyalty or conformity. Some of the values relevant to a situation may be incompatible. Indeed, many of the great

dramatic works are portrayals of value conflict, in which the individual feels caught. Antigone cannot be loyal to her brother and the demands of state at the same time. The political leader, facing the decision of war or peace, may be caught by his loyalty to the value of patriotism and by his reverence for life. The Akeda (Genesis 22), staging Abraham's readiness to sacrifice his son Isaac upon divine command, is a dramatic portrayal of value conflict as well as a demonstration of the value hierarchy, in that Abraham, when pressed, ranks obedience to God higher than parental love. Values themselves, despite their totalitarian character, are usually ranked relative to each other in such a way that one takes precedence over the other in case of conflict. Much conflict of values is due to the failure of individuals or groups or even whole cultures, to organize values into a hierarchy or rank-order system in which the important and abiding values rank near the top, taking precedence over lesser ones.

An individual's value hierarchy is probably acquired by identification with the examples of others and the continuous exercise of choices in conflict situations. In addition to conscious choice, unconscious and irrational value preferences continue to assert themselves and create the skeletal structure of the value hierarchy.

What is conscience?

While the word conscience does not appear in the Old Testament, it does appear in some of the old Hebrew writings, as well as in the Greek classics, of course, and many times in the New Testament. Cicero was the first to employ the noun "conscientia." ". . . Christianity gave rise to a new conception of conscience . . . because it created a new morality. . . . It brought a doctrine of personal salvation based upon the idea that the present life was a probation for a better life, and that man's only hope of happiness in the next life was his conformity to duty here." (James Hastings)

The definition of conscience has provoked enough discussion to fill many thousands of pages. But it all comes down to a sense of the rightness or wrongness of things—thought, intentions, conduct, character. This rightness or wrongness is inevitably something regarding which the individual has a responsibility, so that the conscience represents a kind of internal, privately maintained judge.

It was not until Sigmund Freud began his studies of motivation and mentation (mental activity) that the conscience received scientific consideration. Freud distinguished between a largely unconscious accumu-

lation of sanctions based on early childhood experiences which he called the superego, and a largely conscious accumulation of learned attitudes and aspirations which he called the ego ideal. It was his theory that the Oedipus complex of early childhood is "solved" through the adoption of a "live and let live" philosophy by the symbolic incorporation of the father into the psychological system as the superego. (Actually the basis for superego attitudes may be maternal as well as paternal, so that this is not a complete delineation of the theory.) This process is ordinarily completed before the sixth year of life. Being out of contact with reality thereafter, the superego remains unamenable to change from experience and learning. Principles of conduct which derive from the latter go toward the formation of the ego ideal.

Psychoanalytic treatment is sometimes said to aim at the elimination of the superego in favor of the dominance of the ego ideal. Some highly moral individuals are (were) shocked at the suggestion that the superego could and should be dispensed with. This alarm is dispelled when it is clearly realized that conscience in common use is a mixture of superego and ego ideal functions. Father Noel Mailloux of Montreal has suggested the distinction of archaic conscience (the superego) and true conscience.

Another common confusion which this may clarify relates to the distinctions between guilt feelings and objective guilt. Some crimes are committed by individuals who, although extremely guilty, deny any guilt feelings. On the other hand, some upright citizens suffer from severe and, of course, irrational guilt feelings regarding trivial matters. In the first instance such superego faculties as may have been present may have been bribed or otherwise extinguished—some consciences being highly corruptible; in the latter instance the superego is powerful, sadistic, and concretistic (representing abstract things as concrete).

It is to Freud's everlasting credit to have made the beginnings of a scientific distinction between the two kinds of internal sanctions experienced by the individual.

The early years of dependency upon parents are particularly formative and provide the superego's basic structure, mostly through unconscious identification with the exemplified morality of parents and other love objects. Though there is little clear evidence of moral judgment in the infant, who tends to act quite directly on his impulses, it is now seen as increasingly plausible that some primitive, judgmental nuclear "good-bad" scheme, ready to assimilate specific content of experience,

is present at birth. But it is certain that most of the superego's value hierarchy is learned. There are immense clinical varieties in the potential to develop guilt feelings. Superegos are described as strong (i.e., demanding, forbidding, punitive, overly strict, etc.), or weak (i.e., too lenient, open to bribery, too permissive, etc.). They may deviate from prevailing cultural norms. Conversely, it is possible to define certain subcultures by the kind of superego dominant in each of them.

Though conscience and superego are by definition internal psychic structures, the degree of external reinforcement needed to keep the structure active varies considerably. Some people remain subject to the sanctions of their conscience even under the most lenient or immoral environmental conditions, while others abolish their standards easily when placed in a permissive or morally chaotic environment.

In many theological and philosophical definitions of conscience the term does not only refer to the guidance for behavior received from internalized values (superego and ego ideal), but also to the conscious "acts" of choosing, judging, and evaluating. Psychologically considered, these are ego processes. It is to be remembered that the totality of moral behavior is produced by the synthesis, integration, and bargaining which the ego establishes between the demands and opportunities of the superego, the ego ideal, and the outer world (other individuals, society, culture), and the demands of instinctual drives (needs, wishes, strivings). The superego normally facilitates choosing by "automatizing" it.

The word conscience, to repeat in order to clarify, is sometimes used to refer to the superego, sometimes to the ego ideal, and sometimes to both.

What are moral sanctions? What do they lead to?

When a person fails to live up to the demands or strictures of his superego and ego ideal, a special form of anxiety is produced which serves as an internal warning that "something is wrong" and needs to be corrected (the so-called signal function), and, since anxiety is an unpleasant feeling, as a subjective, self-induced form of punishment.

Two forms of this special anxiety are distinguished: (1) guilt feelings, induced by the superego, indicating that some boundary of correctness or goodness is trespassed, with the unconscious expectation that the person will be hurt or punished through physical harm (e.g., "castration"); (2) shame, induced by the ego ideal, indicative of falling short of one's own ideals or goals, with the expectation that one will be

rejected. The theme in the first case is "I am no good—I will be harmed"; in the second "I am inadequate or unworthy—I will be abandoned." These two states are accompanied by different physiological processes.

In either case, a trespass or failure produces a subjective attempt at retribution. A psychic "price," "ransom," or "fine" has to be paid which will enable the person to consider himself restored to acceptance by his superego and ego ideal, through atonement.

Clinically, one sees many individual habitual forms of atonement for guilt feelings and shame, which range from concrete to symbolic acts. Guilt feelings may be relieved by a "good deed" such as buying a gift for someone, helping a needy person, doing hard work, accomplishing a difficult or menial chore, saying prayers, costly ritualistic practices, conspicuous "niceness," serving a jail sentence, or asking (consciously or unconsciously) for some other objective form of punishment. Occasionally, an innocent person turns himself in to the police as the perpetrator of a recently publicized crime. Certain types of accidents and physical injuries, certain types of socioeconomic setbacks, certain types of psychosomatic illness, are unconsciously maneuvered by the individual as atonement for guilt feelings. There is, finally, the most severe self-punishment of suicide.

Since the superego contains a large irrational core stemming from very early unconscious learning processes in which outside and inside, overt and covert, objective and subjective, were insufficiently distinguished, superego sanctions often pertain equally to overt deeds and subjective thoughts. It is for some persons intolerable even to think badly or angrily of someone else. Thoughts, fantasies, and intimate wishes, even when kept entirely private and not acted upon at all are often treated as acts by a strict superego. In religions which practice the confessional much has been written about so-called "scrupulosity," a morbid urge to confess repeatedly all kinds of imaginary misdeeds, while the person remains refractory to the sacramental assertion of forgiveness. Psychiatric referrals from priests hearing such persons in confession are not uncommon.

Do values change?

Although systems of values and value hierarchies tend to be conservative, there is ample evidence that they change in time. Historians have attributed the decline of great civilizations to a change in values, e.g., Edward Gibbon's account of the decay of the Roman Empire.

Anthropologists have made longitudinal studies of primitive societies in rapid transition, e.g., Margaret Mead's study of the Manus people (of the Admiralty Islands) showing that radical shifts in values, as demonstrated in family patterns, distribution of power, religion, etc., are possible within one or two generations. A considerable portion of early sociology arose from the study of value change as related to the industrial revolution and technological-economic change during the nineteenth and twentieth centuries. Illuminating are Max Weber's and R. H. Tawney's analysis of religious-doctrinal value change, by correlative study of early Protestantism and the rise of capitalism. The infamous Stokes trial, in which evolution was sharply opposed by the fundamentalist interpretation of the doctrine of creation, can be seen as a panic response to rapid value change. Even religious values, notably conservative, are subject to change: bloody sacrifices of children and animals have been replaced in Judaism and Christianity by the symbolic sacrifice of possessions or money, or merely the renunciation of certain pleasures. Retributive justice and the talion principle ("an eye for an eye and a tooth for a tooth") have been replaced by symbolic penalties or even abandoned in favor of a loving concern for the offender and mercy ("turning the other cheek," rehabilitation, re-education, etc.).

But it is also evident that the rate of change of values tends to be much slower than that of, say, economic organization, artistic styles, technology, or educational techniques. Consider how deeply entrenched racial attitudes remain despite major changes in the socioeconomic context. One psychological explanation of this conservatism is that not only much of the *value-learning* process but also the *value-teaching* process is unconscious. The parents' smiles and frowns, do's and don'ts, prescriptions and proscriptions to the children come automatically. They give praise and blame driven by their own inner standards. Hence there tends to be considerable similarity in basic values between the generations, especially in the moral values. Legal codification has the same conservative effect.

This works both positively and negatively: some families characteristically perpetuate strictness, compulsiveness, and emphasis on order and propriety, while others perpetuate "loose morality," open defiance of cultural norms, vice, or crime. Occasionally one finds rather quick revolutionary changes in values and in the structure of the value hierarchy, under the political pressure of a new ideology (e.g., the French Revolution, the German Nazi regime, Communistic indoctrination). Methods of forced indoctrination can have a powerful impact

within a few years. Religious conversion in individuals can also be seen as a revolutionary change in the value system.

What are religious values and how are they related to other values?

There are probably as many definitions of religious values as there are views of religion. To mention two extremes: Some would confine the term to reverence for the divine and an effort to do "the will of God" in a circumscribed ritual bound to a certain space and time. Others claim that whatever values a person abides by constitute his religion. Religious people tend to feel that religion should determine all values, and since religion deals with the absolute it is the criterion whereby other values are assessed. In this way, the religious prohibition of "graven images" has at times led to the devaluation of art, and a primitive taboo may stifle technological progress. Religious values, of whatever type, are then placed at the top of the value hierarchy, having precedence in choice situations.

Historically one finds a tendency for the prevailing values in any culture, whatever their origin, utility, degree of rationality or barbarism, to become deified and thus secondarily reinforced by divine sanctions. Anthropologically, it may be said that in the idea of "the sacred" or "the holy" the notions of God(s) and value(s) meet. But when societies become secularized, as happens in the technological civilizations, religious values and cultural values (law, literature, science, curiosity, inventiveness, political welfare, technical progress, etc.) may constitute two more or less separate realms. With this development the religious sources of some public morality (e.g., care of the sick in hospitals, practice of charity) as well as the secular origin of some religious values (e.g., defending slavery by Bible quotations, taboo on anger in church life, the fashionableness of church membership) may be forgotten or mixed up beyond recognition. The relations between religious and "other" values are thus extremely complex.

Further complexity arises from the individual's own multiplicity of motives and the conflicts possibly engendered thereby. Psychological observation shows that many people, although verbally placing religious values (e.g., brotherly love, sacrifice, reverence for created life) at the top of their value hierarchy, in practice abide by quite opposed principles (e.g., sharp competition, greed, callousness). And one also finds people who verbally deny being religious in any sense and behave in accordance with the highest values which to others seem to be clearly of religious origin, often pursued, moreover, with great zeal and at

considerable sacrifice of personal comfort. These can be seen as types of chronic value conflicts which remain in many cases unresolved.

In many cases one finds that double ethical standards are quite common, carrying over from one generation to the next without producing strong guilt feelings in the individual or the group: conscience itself is insufficiently integrated, permits being bribed, or succumbs to environmental pressures.

Religious authorities are wont to expose the weakness of religious values (or their lowering in the value hierarchy) when they point to such persistent social evils, even among believers, as racial prejudice, pride, selfishness, gross inequalities in the distribution of wealth, unequal opportunities for education and advancement, conformism to standards of suburbia, etc. The essence of religious education in all its forms lies in value-learning and the reinforcement of religious value principles.

The crisis situations in an individual's life (dying, illness, bereavement) and in the life of a group (political oppressions, persecutions, natural disaster) are a test of their value systems, often placing the nature of the value hierarchy in sharp relief by placing individuals or groups before a difficult choice (e.g., hope or despair, loyalty or treason, solitary witness or conformity to majority opinion, solidarity or survival of the fittest).

What is the role of values in promoting or maintaining mental health?

If values are directive ideas or estimates on the basis of which one is willing to make the greater sacrifices (renunciation of dangerous or asocial impulses, in the service of adaptation and personality integration), it follows that the clinical professions have an interest in fostering values and in formulating clinical judgments about types and varieties of values. On the other hand, clinicians are not ethicists and must avoid being moralistic or judgmental. The following clinical observations can be reported:

1. Some patients with mental disorder, especially those with asocial, criminal, or psychopathic behavior, show a conspicuous lack of values, a weakly integrated hierarchy of values, or a predominance of low-order values such as prestige hunger, excessive admiration of physique, peer approval—often with a lack of guilt feelings even in the face of objective guilt.

2. Some patients with mental disorder, especially those with obsessive-compulsive traits and depressive tendencies, show a conspicuous

overactivity of the values of orderliness, work, correctness, cleanliness, abstinence from common pleasures, atonement for transgressions, etc., often to the detriment of themselves and those near to them, imposing strong irrational guilt feelings in the absence of an objective index of guilt.

3. Some people, with or without mental disorder, feel greatly helped by a deep sense of trust in the intentions of the divine or of nature toward them, or in people generally, or of a certain type, sex, age, etc., which imbues them with a sense of optimism about the goodness of life which, in the case of patients, is therapeutically useful.

4. Some people, with or without mental disorder, have a deep sense of distrust and chronic disappointment in other people, their God, or in nature or culture generally, which makes them cynical, angry, bitter, vengeful, lonely, withdrawn, etc. In the case of patients, this basic value system is therapeutically a great liability.

5. Some people, with or without mental disorder, experience a deep sense of meaninglessness, boredom, or emptiness, as if no value can be found worth aiming at or living for. Often these people feel propelled by alien forces or motives, robotlike, acting as automatons, deprived of any feeling. In the case of patients, if treatment is ever sought by them, such pervasive valuelessness is a therapeutic liability.

While these few examples demonstrate that the relation between values and mental illness or health are very complex, even when one abstains from specifying cause and effect sequences, clinical concerns nevertheless can lead to some positive remarks or recommendations regarding "the value of values" for mental health. At the risk of triteness it should be said that when love, forgiveness, tolerance, charity, and the high order of pleasure and joy typically associated with these are placed high in the value hierarchy, much value conflict can be avoided and a rather sure aid given for determining one's course of action in important choice situations. If other important values (e.g., interest in art, public welfare, religion, discovery, curiosity) are also pursued, the nature of love, joy, tolerance, etc., can take the possible sting out of a too vigorous abiding by these other values, which can have their own tyrannical, totalitarian, and thus detrimental impact.

Many a zealous reformer, artist, political philosopher, or religionist has ended up producing "unvalue" by the very pursuit of a value which was not checked by the greater value of love, with its humor, charm, warmth, acceptance of human frailty, and capacity for commonsense realism. In regard to values, the clinician's question is likely to be:

“How constructive or destructive is this or that value, this or that value hierarchy, both for the individual and the common good?” Mental health is not fostered by a predominance of wrath or revengeful ideas, hostility, guilt feelings, stinginess, miserliness, shame, intolerance, or the promotion of pain and suffering, even when such ideas may be derived from a seemingly lofty set of moral premises, religious systems, or “Weltanschauungen.”

MOTIVATION

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What is motivation? Is all behavior motivated?

When a layman inquires about motives, he seeks to answer the question *Why?* "Why did Mary steal the apples?" "Why did Mr. X commit suicide?" The answers, if given in terms of conscious motives, are often unsatisfactory and incomplete. Within technical psychology there is a much broader view. The study of motivation is concerned with a search for determinants—all determinants—of behavior. This search moves far beyond an introspective study of conscious motives. It delves into the physical, chemical, social, and cultural causes of action as well as into the past experiences of individuals.

We commonly believe that behavior is determined by intentions, desires, goals, interests, values, beliefs, attitudes, habits, traits of personality, and similar psychological factors. The student of motivation, of course, is concerned with these factors but also with organic states of hunger, thirst, drowsiness, and with environmental conditions, especially incentives that act as spurs and checks to behavior.

The analysis of motivation is difficult because the determinants of behavior are complex and in dynamic interaction. At least four main aspects must be considered. First, motivation is a process of arousing and sustaining action. The individual organism is activated by energy transformations within nerves, muscles, and other structures. Second, motivation is a process of regulating and directing behavior. Regulation may be passive in the sense that bodily structures limit and restrict the patterns of behavior of which an organism is capable. Regulation and direction may be active when an organism maintains a fixed set, or orientation, toward a goal—an intent to act. Third, the complex determinants of behavior are the end products of a course of development. There is a developmental aspect. As an individual progresses through life, he acquires habits, knowledge, skills, and his interests, aims, goals, and ideals may change. Fourth, the developed motives, attitudes, habits, sentiments, traits, and the like, are in dynamic interaction. A motive may be blocked or in conflict with other motives.

Broadly viewed, all behavior is motivated in the sense that it is causally determined; but some psychologists have distinguished between "motivated" and "unmotivated" behavior. They state that only goal-directed behavior is motivated or behavior that meets a need. Mechanical associations, reflexes, some abnormal patterns of behavior, and many random and aimless movements, are said to lack motivation. With a broader view, however, all behavior is motivated and the study of motivation is a search for all determinants—an attempt to understand and explore every aspect of determination.

What is "motivation research"? How is it used in product development, advertising, and marketing?

A wide area of practical activity is known as "motivation research." This is a study of human motivation related to product development, advertising, salesmanship, marketing, and similar matters. Questions of interest in "motivation research" are: What makes a product appeal to the prospective purchaser? Why does a consumer buy what he does? What factors in advertising, marketing, and salesmanship influence the buyer? In an attempt to answer these questions the investigator ranges widely over anthropology, sociology, psychology, psychoanalysis, and other fields. Any approach that promises to throw light upon consumer behavior is of interest in "motivation research."

When used commercially "motivation research" has been criticized on the ground that it is a means of exploiting people. It has been criticized also on the ground that it is not basic science but purely a commercial activity akin to propaganda.

"Motivation research" is not to be confused with the scientific investigation of motivation. Many psychologists have studied problems of motivation just as they have studied problems of learning, perception, discrimination, and thought. This purely scientific activity, however, often has practical applications that were unforeseen by the investigator.

In everyday life motivation is important practically. For example, in the schoolroom Johnnie is interested in arithmetic; he works at it steadily and for fun with little or no help; Mary is bored and has to be prodded to do her lessons. The difference between Johnnie and Mary is one of motivation. Johnnie is intrinsically motivated; Mary requires special incentives to make her work. Again, in the courtroom a man who is convicted of murder may forfeit his life. If convicted of manslaughter, he is likely to receive a lighter sentence. The difference is

one of motivation—whether or not there was an intent to kill. Thus, motivation can make a tremendous practical difference in everyday situations.

What are drives? How are they related to instincts, appetites, and aversions?

In 1918, Robert S. Woodworth introduced the term “drive” to American psychology; he distinguished between mechanism and drive. The organism, like a man-made machine, is a physical mechanism that regulates patterns of activity of which the structure is capable. Drive (in the singular sense) is energy that makes the machine go. Physical energy transformations within a mechanism arouse and sustain action. After Woodworth, other psychologists wrote about specific drives (in the plural sense) such as hunger, thirst, and sex. Since these drives cannot be distinguished as different forms of physical energy, they must be identified by bodily mechanisms that regulate activity or by associated patterns of purposive behavior.

In general, a drive is a persisting organic state or condition that arouses and sustains behavior and possibly sensitizes the organism by lowering thresholds for specific forms of response. Organic drives must be distinguished from the environmental goal-objects toward which behavior is directed and from other incentives both positive and negative.

The drive concept has taken over some of the meanings formerly attached to instinct as a result of the anti-instinct movement in the 1920's and 1930's. The term “instinct” remains as a descriptive label for complex, unlearned patterns of behavior that are common to a species and elicited by environmental stimuli under appropriate physiological states. The term “drive” has an explanatory rather than a descriptive connotation. (See *Instinct*)

Edward C. Tolman classified drives as appetites and aversions. Appetites are organic states that lead to positive, “seeking” behavior, such as the appetites for food or specific kinds of foods, water, sleep, rest, activity, sex, and elimination. Appetites are cyclic; they depend upon recurring organic conditions; they are removed by consummatory responses, e.g., thirst is removed by drinking. Aversions, contrastingly, lead to negative, “avoiding” behavior. They depend upon environmental conditions and hence appear sporadically and unpredictably; for example, aversions to pain, to bitter tastes, to shrill sounds.

Aversions, we believe, are more appropriately considered under the heading of incentive motivation than as instances of organic drives.

What is incentive motivation? How is it related to performance and learning?

The distinction between incentive motivation and drives is basic, although the two have an interlocking relation. Incentives originate within the environment; organic drives have an internal origin. Incentives may be positive or negative according to the orientation of the organism. They are of two main kinds: first, goal-objects such as food, which is an incentive to a hungry animal; second, external stimulations which act as spurs or checks to goal-directed behavior, as the whip applied to the racehorse and words of praise or reproof to a schoolboy. A gold star placed after the name of a child for good work is a social incentive. So is a paycheck.

Incentives are important determinants of performance and learning. A great many experiments upon incentive motivation have been carried out and important principles established among which are the following: (1) An individual works more efficiently with a visible goal than without a goal or with a poorly defined goal; (2) working with knowledge of results is superior to working with no feedback of information about performance; (3) praise, encouragement, and success build up attitudes of self-confidence that facilitate performance and learning, while reproof, discouragement, and failure have the opposite effect.

Rewards reinforce the patterns of behavior that are rewarded. Punishments have different effects according to their intensity. At low intensities punishments have an instructive effect; they inform the subject whether his response was right or wrong. At moderate intensities punishments act as an incentive in the sense that the subject will attempt to avoid the behavior that is punished. At high intensities punishments are disruptive. If a child is spanked for a wrong act so that he cries and screams, he is, for the time being, emotionally disorganized. The emotional disruption interferes with performance and learning; but the child may subsequently avoid the act that was punished.

Do needs, deficits, and tensions motivate behavior?

Obviously, yes. When there is a "need" for food, water, money, or something else a tension develops that motivates the organism to meet the need, remove the deficit, and relax the tension. Some psychologists have sought the springs of action in tensions that arise from disturbed complacency, from disparity, or from cognitive dissonance. The individual, it is said, is motivated to restore disturbed complacency, to

relax tension, to remove disparity or dissonance. He seeks to make adjustments that will remove his frustrations.

One way to define the bodily needs of an organism is to refer to the physiological principle of homeostasis. Since the time of Claude Bernard it has been known that the cells of the body can survive only in a relatively constant fluid environment. The fluids of the body—blood and lymph—maintain a relatively constant content, or homeostasis, of water, oxygen, glucose, mineral salts, and a relatively stable temperature, level of acidity, etc. These relatively constant physical states are maintained through the combined action of brain, nerves, heart, lungs, skin, kidneys, spleen, and other structures. The psychological significance of homeostasis lies in the fact that it provides a criterion for defining the bodily needs of an organism. To maintain homeostasis and hence to survive, an organism must obtain air, water, and various food substances from the environment, and must avoid the extremes of heat and cold. The basic drives of hunger, thirst, activity, rest, urination, defecation, temperature regulation, are directed toward the maintaining of homeostasis. They have been called homeostatic drives.

The concept of "need," however, includes more than homeostatic needs. There are social and personality needs that are definitely non-homeostatic. Henry A. Murray distinguished between viscerogenic and psychogenic needs. The former originate within the tissues, the latter within the social environment. Examples of psychogenic needs are the needs for achievement, affection, dominance, affiliation, and social recognition.

The view that needs, deficits, and tensions motivate behavior has won wide acceptance. There are those, however, who have pointed out that the deficit-tension view of motivation is incomplete. It ignores a positive impulse to grow, to play, to have fun, to actualize one's potential, to establish competence—quite apart from the meeting of needs and the removing of deficits. There are positive trends in human activity.

Do pleasantness and unpleasantness influence action? What is psychological hedonism?

We commonly assume that pleasantness and unpleasantness influence our actions. Thus when a child works for a reward of candy, we assume that his enjoyment of the candy rather than a bodily need determines his behavior.

According to an ancient doctrine of hedonism, pleasantness and unpleasantness determine conduct so as to maximize pleasantness and minimize unpleasantness. The so-called "pleasure-pain" principle played an important role in the writings of Herbert Spencer who utilized the principle to explain the evolution of adaptive behavior. More recently the hedonic principle was assumed by Edward L. Thorndike in his "law of effect," which affirms that satisfaction and annoyance are basic determinants of behavior and learning.

Theoretical psychologists objected to the traditional doctrine of hedonism because it implied subjectivism and mind-body interaction. Current research in electroencephalography, however, has shown that "rewards" and "punishments" have a physiological basis in subcortical centers. Further, it has been shown that affective processes, both positive and negative, can be analyzed quantitatively and objectively with laboratory animals.

How do habits influence action? How do habits differ from motives?

Habits have been defined as learned patterns of behavior or as the acquired neural organization upon which such learned behavior rests. A habit can be illustrated by the performance of any skilled act such as typewriting or driving a car.

The neural organization that constitutes a habit may remain latent for indefinite periods of time or it may be activated. For example, as a schoolboy I learned to recite the alphabet; I can still do so if the occasion demands it, but the neural organization that makes this learned act possible is latent most of the time.

When we describe a pattern of behavior as "habit," we emphasize the fact that it has been learned. When we speak of "motive," contrastingly, we are considering the arousal and sustaining of action as well as regulation by neural organization. A wish to recite the alphabet is a motive.

But motives may also be latent. For example, my intention to take a trip next week is a motive. This motive persists when I sleep and when I attend to various other activities. The latent motive differs from latent habit organization in two main respects. First, the latent motive tends to produce tension and action. e.g., when the appointed time comes I pack my bag, call a cab, take a train, thus utilizing various bits of latent habit organization. The latent habit does not produce tension and action; if it did, it would to some extent be motivating. Second, a motive has a terminal reaction—a response that brings the motive to a

close or consummates it. When I have arrived at my destination the motive to get there no longer exists.

What are will and effort? What determines choice, preference, decision?

Most of us believe that will and effort influence action. What, then, is "will"? And what is "effort"?

To the technical psychologist "will" is a "set" (or determination) to act in a particular way. If this set is rigid and persistent, we ordinarily say that a man has a strong will or perhaps that he is stubborn; but if it is vacillating, we say his will is weak. In the laboratory the subject's "set" is controlled by instruction. For example: "If you see a red light, respond by pressing the right key; if a green light, respond by pressing the left key." This instruction predisposes the subject to respond in a particular way. The set regulates, directs, and energizes action. It is clearly motivating.

The set for attentive observation may be maintained under distraction or conflict. The subject then reports a sense of effort, which we call "effort of will." For example, if a man is driving a car and the glare from the headlights of an oncoming car is in his eyes, he feels tension in his muscles. This tension is due to interference with the maintaining of a set.

The process of arriving at a set, or determination, is commonly called "making up one's mind." This process involves choice, preference, and decision. It occurs when two or more motivations are opposed or in conflict.

In simple preference one motivation dominates another. For example, if a laboratory rat is forced to sample two sugar solutions and then given a choice, he tends to select the sweeter (higher concentration). His behavior reveals a preference since experimental conditions are such that he cannot accept both. Human decisions are more complex. In a game of chess, for example, the player deliberates before making a move. There are incipient trials and errors—a mental weighing of the consequences of one move or another. Then there is decision and action.

Human experiments have shown that unconscious mental sets, habits, automatic associations, sentiments, and other factors of which the subject may not be clearly aware, influence choice and action. The basic determinants are only in part rational; but an important choice may be rationalized.

What are the main concepts of dynamic psychology?

Dynamic psychology is a special kind of motivational psychology that has developed from the work of Sigmund Freud and other psychoanalysts. To Freud we owe many concepts that are commonplace today, such as unconscious motivation, repression, projection, rationalization, identification, sublimation, symbolization, and others.

The concept of unconscious motivation was not original with Freud, but he elaborated and extended it. He emphasized that all psychological processes are causally determined. Slips of the tongue, losing or breaking objects, failure to keep appointments and other instances of forgetting, awkward movements, accidents, and the like, are commonly determined by hidden and unrecognized motives. Dreams, daydreams, and flights of fantasy, are symbolic wish fulfillments even though the subject is unaware of the motivation.

Another concept is repression. Traumatic emotional experiences may become repressed and dissociated so that the patient is not aware of their existence. The repressed systems of experience, however, continue to exist and produce various symptoms—phobias, obsessions, compulsions, guilt feelings, and other phenomena. It is important in this connection to distinguish between the psychological phenomena, on the one hand, and the underlying dynamics, on the other.

Rationalization is a dynamic process through which the subject attempts to make his conduct appear reasonable. The giving of alibis and *ex post facto* explanations are often rationalizations. Rationalization is an attempt at self-justification in which feeling and emotion, rather than reason, play a dominant role.

The technique of psychoanalysis aims to bring the patient to a consciousness of repressed motivations and emotional conflicts. In reliving traumatic emotional experiences he may gain relief from tension and make a readjustment to life situations. (See *Mental Mechanisms*)

How is emotion related to motivation? Is emotion a factor in mental health?

There are several views concerning the nature of emotion. According to one view, an emotion is the conscious feeling associated with an instinctive impulse. William McDougall argued that the emotion of anger is the feeling associated with hostile attack, fear is associated with flight, and lust with sexual advance. From this point of view emotion appears as the conscious correlate of some primitive impulse.

Emotional behavior is highly organized, integrated, and well-motivated activity. (See *Emotions*)

According to another view, favored by the present writer, an emotion is a disturbed affective state of psychological origin that depends upon blocking of motives or upon sudden release of tension as in laughing and weeping. An emotion is thus a disorganized affective state that rests upon dynamic interaction of motivating factors. This view has been extended to take account of persisting affective disturbances. When, for example, we speak of an emotionally disturbed child, we are referring to a persisting disturbance within the individual. To understand such a disturbance one must analyze the life situation in terms of goals, attitudes, frustrations, sources of stress, traits of personality, habits, and other determinants. In other words, one must examine the underlying dynamics of emotional behavior. (See *Emotional Crises*)

Emotional disturbances may cause psychosomatic illnesses. Persisting states of anxiety, hostility, fear, depression, and the like, may produce or exacerbate gastric ulcers, essential hypertension, exophthalmic goiter, bronchial asthma, and other disorders. (See *Psychosomatic Illness*)

A key to an understanding of these emotional disturbances lies in the underlying motivations and their dynamic interactions.

How does the self, or ego, enter into motivation?

The self is not an entity but a concept. The individual is not born with an ego but gradually develops systems of ideas and evaluative attitudes concerning his nature, importance, and competence. He develops feelings of self-confidence or of inferiority based upon the experiences of success and failure. These cognitive systems (beliefs), self-evaluating attitudes, and feelings determine behavior exactly as other beliefs, attitudes, and feelings do. They also change with age and experience.

Can the direction of motivation become destructive to the individual? What could be the cause of this?

Some persons have a low tolerance for frustration. When highly motivated and blocked they prefer suicide to continuation of a miserable existence. An individual may be deeply depressed and see no future for his life; he would rather terminate it than face failure, suffering, humiliation, and other unpleasant experiences. If an emotionally

unstable individual is frustrated in love, he may seek a way out in suicide.

Psychopaths can be dangerous to themselves and others. The dynamic roots of the difficulty may go back to early emotional experiences and childhood traumata. To complicate the picture there may be brain injury or other physical basis for the psychopathic behavior.

If the direction of motivation threatens destruction of the individual or others, a psychiatrist or clinical psychologist should be consulted promptly. Each case must be examined individually because the specific manifestations of destructive and hostile impulses vary widely from person to person.

Can motives be changed through therapy, drugs, or hypnosis? Is it ever "too late" to change motives?

In everyday life we frequently change motives and attitudes voluntarily: A man realizes that his work is leading him into a blind alley and decides to try a different kind of job. But there are motives that resist voluntary change; these may be modified by therapeutic methods.

If a man is addicted to opium, it is futile to argue that he should change his way. Drug addictions have a biochemical basis and their treatment requires medical as well as psychological therapy. To argue with an addict that he should change his appetite is like trying to persuade a thirsty man that he does not need water.

If motives depend upon traumatic experiences, drugs and hypnosis may be useful as secondary aids. Some drugs, such as Sodium Amytal and Sodium Pentothal, are used to produce a state of twilight sleep in which the patient "relives," with dramatic vividness, a traumatic experience. The drowsy state is utilized by the psychiatrist to relieve tensions and to assist the individual in making a reorientation. Hypnosis has also been employed in psychotherapy in attempts to influence motivation. Under hypnosis the subject may recall repressed experiences or may accept a suggestion that is carried out in posthypnotic situations. (See *Hypnosis*)

The success of these methods depends upon the extent to which the patient can achieve a corrective emotional experience. Most psychotherapeutic methods aim to change motivation by helping the patient relive some emotional crisis, by relaxing tensions and enabling him to work out a reorientation.

It is never "too late" to attempt a change of motives but success will depend upon conditions. Traits, habits, attitudes, and goals organized

in early life are not easily changed. If the motivation rests upon a traumatic experience or upon some physical disorder, a psychiatrist or clinical psychologist should be consulted.

Where can I learn more about motivation?

On the elementary level see any up-to-date textbook of general psychology. Chapters dealing with motivation, emotion, adjustment, and related topics, can be found in most contemporary textbooks. On the intermediate level Paul T. Young's *Motivation and Emotion* will be helpful. This is a comprehensive survey of the field of motivation and emotion. A series of ten symposia on motivation, edited by M. R. Jones, beginning in 1953 and published annually by the University of Nebraska Press, present a great deal of data and diverse interpretations of motivation.

MULTIPLE BIRTH AND MENTAL HEALTH

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What is a multiple birth?

Most children are born singly, but occasionally, for reasons not yet clearly understood, two or more children develop from the same pregnancy. Some of these are called identical (monozygotic or uni-ovular) twins, triplets, etc. These result from the splitting of a single fertilized egg at an early stage of fetal life. Other multiple births are termed fraternal (dizygotic or binovular) because they arise from two or more sperms fertilizing two or more different eggs, which grow separately but concurrently. Actually, any combination of identical and fraternal multiple births can and does occur, although multiple births of more than two are relatively uncommon.

What is the rate of multiple births?

In the United States, twins of all kinds occur once in every 86 births, on the average. Of these, various studies have shown that one-fourth are one-egg twins. Of the remainder, about half are composed of same-sexed and half of opposite-sexed, two-egg twins. Multiple births of more than two babies occur much less commonly. Triplets appear only about once in every 86 twin births (or 1 in approximately 7,400 births), quadruplets once in every 86 triplet births (or 1 in approximately 636,000 births), and quintuplets only once in 86 quadruplet births (or 1 in about 55,000,000 births). There is no well-documented report of sextuplets living more than a few hours, and no reliable report of more than six children ever being born at one time.

These rates approximate those found throughout the world except for considerable variation above and below the United States rates for two-egg births. Science does not know why these birth frequencies regularly follow this mathematical progression.

What are Siamese twins?

Sometimes a single ovum or fertilized egg begins to split and develop into two individual embryos but fails to separate completely. This failure can leave the infant(s) at birth in a state varying from two completely formed individuals, attached only superficially by small areas of unimportant tissue, to one complete individual with parts of a second creature in any stage of completion, often integrally allied in vital structures with the more complete twin mate.

To what extent do children of the same multiple birth resemble one another?

Generally speaking, all multiple-birth children tend to be more like one another, psychologically as well as physically, than ordinary siblings (sisters and brothers) of the same family. The causes for these resemblances, as well as the differences, are bound up in a complicated interaction between hereditary and environmental processes. For example, identical, multiple-birth children theoretically share almost identical inheritance, while fraternal, multiple-birth children are no closer genetically than are single-birth children from the same parents. Observations of multiple-birth children lead us to believe that an important component of these increased resemblances among all multiple-born children (including one-egg births) is due to a greater similarity of their experience than is true for normal siblings.

Mirror-imaging is the only consistent biological difference that occurs between one-egg twins. Even this is not especially common except in Siamese twins. It is not believed to be accompanied by any innate defects, although it may result in inferior physical development for one of the twins, as a result of incomplete development and/or growth competition during pregnancy. Its origin appears to lie in the asymmetrical nature of fetal development in relation to one-egg twinning.

Do multiple-birth children experience any special mental health problems?

There is apparently no particular inherited factor directly associated with the fact of multiple birth as such, since mental illness appears to be no higher among multiple-birth individuals than among the general population. On the other hand, children of one-egg births share a common heredity and usually many common experiences. These shape their personalities in certain ways raising mental health problems not present in the normal population. Children of two-egg

(or more) births, similarly, often share experiences more than ordinary siblings do, a fact that to some degree generates some of the same problems.

If one twin suffers from a mental disorder or defect, how frequently does his twin mate develop the same disturbance? Does this occur in some disorders more than others?

There is a wide variety of mental problems, too numerous to mention, which appear in the second twin (concordance) more often than would be expected for the average population. More studies have been made of twins because of the unavailability of triplets and larger unit multiple-born children in numbers large enough to determine reliable trends. The concordance rates for various mental illnesses and defects are almost invariably higher for identical than for fraternal twins. For example, concordance rates for schizophrenia vary from about 70 to 80 per cent in monozygotic twins to only 10 to 15 per cent in dizygotic twins compared to about 1 per cent in the general population. Similar differences in rates occur in most other disorders, such as the other psychoses, neuroses, cerebral palsy, epilepsy, mongolism, and other types of mental deficiency. The disparity in rates is sometimes smaller and occasionally greater, to a point that in certain abnormalities, such as mongolism, almost all one-egg twins exhibit complete concordance while two-egg twins vary little, if at all, from the rate for their later born siblings (about 4 per cent).

To what extent does heredity determine this tendency of one-egg and two-egg twins to develop the same mental disturbances?

For any mental abnormality to any degree determined by innate factors, one-egg birth individuals will be equally likely to develop the disorder. Since many of the concordance rates fall considerably short of 100 per cent (for example, rates as low as 25 per cent were reported for concordance of neurosis by E. T. Slater in 1953), it is evident that environmental factors must be operating to varying degrees to produce different types of mental problems. This applies to two-egg twins as well, except that, as we have already observed, they are no more alike in inheritance than single-birth siblings.

Identical twins are rarely afflicted with different disorders, but this fact cannot be ascribed to heredity alone, since too little evidence has been assembled on identical twins raised in dissimilar environments.

Can the study of twins be helpful in determining the relative importance of heredity and environment?

Actually, one of the chief interests we have in single-egg, multiple-birth children is the natural experimental control they can provide through each receiving a common heredity. Because of this fact, the degree of difference we find in identical twins can safely be ascribed to differences in their environment. This applies to the study of all kinds of problems, not simply those of mental health. Unfortunately, the converse is not true; that is, the degree of concordance between one-egg twins cannot be attributed entirely to heredity. As an illustration, the concordance of male homosexuality in one-egg twins approaches 100 per cent, yet contemporary clinical studies and theories are inclined to place a great deal of the basis for homosexuality at the door of emotional conflicts deriving from adverse experiences. Evidence for this point may be seen in the low concordance of male homosexuality (12 per cent) found in dizygotic twins, which parallels the rate Kinsey found in the American white male population, despite the fact that siblings are considerably more alike from a genetic point of view.

Twins who are occasionally separated at an early age and raised in completely separate homes have provided one of our best sources of information on the extent of difference that could result from environmental influences. Where the differences in the kind of care and amount of education have been extreme, differences in personality and ability of the identical twins have been correspondingly large. In most cases certain similarities remain, however, some of which should be attributed to heredity.

What kinds of environmental influences are important for the personality development of multiple-birth individuals?

In addition to the various environmental conditions that help to form the personality of all children, multiple-birth children are often born with some physical disadvantage as a result of having to share the sometimes more limited food supply and confined living space of the same pregnancy. Births are not infrequently premature. The birth itself may also be more difficult for them, because of the awkward position in which they are placed during pregnancy. In general, the first year of life finds these children less strong and their illness and mortality rates are higher than those of single-birth children. After the first year, their health generally is equal to that of other children. However, these initial physical handicaps may affect personality develop-

ment in many indirect ways, either adversely (e.g., through weakness, making peer competition more difficult) or positively (e.g., through more care and attention being provided).

These kinds of prenatal and natal problems also affect multi-egg twins, of course, but other types of environmental factors are not quite so pervasive with fraternal twins. Among the most important of these is the fact that identical twins look so nearly alike that they usually are treated much more in the same manner than are fraternal twins.

Almost all multiple-born children, on the other hand, are born within minutes of their partners. This means that, for practical purposes, they are the same age and occupy the same sibling position in the family. They also begin life in the same family confronted with the same family crises, problems, and mood and attitude trends. Moreover, they will continue to face much of the patterning and shifting of family life at the same point in its history at approximately the same age, stage of development, and relative position throughout the course of their development.

Other kinds of influences arising from the fact of twinship have to do with role differentiation and the competitiveness and intimacy of relations that develop among multiple-birth siblings.

How strong are the ties between multiple-birth individuals? Are they stronger in one-egg birth individuals and do they persist in later life even though they may live apart?

As one might guess from the high frequency with which identical twins show concordance of mental illness, this interdependency can be extreme. The high rate for schizophrenia (about 85 per cent), in particular, a disorder often related to problems of overdependency, may be indicative of this kind of trend in twins. It appears that twins frequently derive as much of their solace and security from one another as they do from their parents.

To the degree that such bonds are established, therefore, it may be estimated that the responsibilities of adult life, i.e., independent work roles, marriage, and family life, may present special emotional problems at the point when separation is required. In fact, many twins retain rather close ties throughout their lives, often living in the same community and probably associating much more intimately and frequently than brothers and sisters usually do. It is likely that the occasional accounts of twins marrying twins may be partly a result of this desire to continue the same quality of intimate relationships.

Although often important, the ties between two-egg twins are usually less than those for identical multiple-born individuals. The usually greater differences in appearance of the two-egg twins, combined with the fact that half of this group are opposite-sexed twins, seems to lead to their being treated with greater variation. As a consequence, they seek outside relationships more consistently.

What problems does multiple-birth create for child rearing? What family relationships should parents be most concerned with? Should identical twins be treated alike?

The most obvious problems stem from the increased care that twins require. Although two may not require twice as much effort as one, since it is almost as easy to prepare two bottles as one for the new infants, there are many problems of care that cannot be solved so simply. For example, it is difficult for one individual to hold and feed two infants simultaneously, and two separate sets of diapers inevitably have to be changed. There is also no assurance that even identical twins will synchronize their schedules to the moment.

The reduced health and strength typical of twins for at least the first year magnifies these problems of care, and engenders increased worries for parents. In addition, some of these conditions of physical health evolve from birth injuries that may produce a certain degree of organic mental retardation.

It is clear, however, that many of the more vital difficulties relating to the care of twins stem from the problem of meeting the emotional care of two children concurrently. This is more than a matter of meeting two sets of needs almost simultaneously. Twins, like other siblings, compete for affection and their share of toys and privileges. Inasmuch as they are the same age, it is not easy to mediate smoothly between them, especially between identical twins where they develop so consistently alike in personality, knowledge, and skills. Competition can, therefore, become more intense than it does among ordinary siblings, but the intimacy of association of twins usually tempers this in many ways. In the last analysis, despite the competitive framework of the American culture, much of the degree of competitiveness, or of any other traits, positive or negative, such as hostility, aggression, affection, cooperation, etc., will depend upon the conditions of homelife and the values and methods of child rearing employed by the parents.

Another major problem likely to be encountered in raising twins is that of ensuring that each twin develops with sufficient individuality.

It is for this reason that parents of twins are encouraged to provide separate experiences for identical twins in particular, and upon occasion to send them to entirely different schools. On the other hand, assuming a certain reasonableness in methods of handling and in attitudes toward twins, which includes sufficient time spent separately with each child, development should proceed in an entirely adequate manner, much as with single-birth children.

Efforts in this direction are often facilitated by the role differentiation that tends to arise between twins, usually a result of a particular advantage (e.g., size or health at birth) or setback (e.g., illness) that either of the twins experiences early in life. The strong personality development or even dominance of one twin, on the other hand, can mean the restriction of the other's personality. Parents need to guard against extremes of differences of this kind, which sometimes lead parents unwittingly to favor the more successful twin, and thus may even permanently dwarf the self-reliance and confidence of the more retreating and submissive twin.

Are the abilities of multiple-born children equal to those of single-born children? Are twins as likely to achieve renown?

In testing abilities, most studies have found twins to be slightly below the level of the general population. This difference is felt to be the result of the higher frequency of prenatal and natal birth difficulties, however, which may be responsible for more organic brain damage among multiple-birth children. But even if this group were excluded, some differences probably would still remain, since twins are consistently retarded in language development compared with single-birth children. Again, it is improbable that the basis for this is hereditary. The most widely accepted explanation relates to the language-learning environment of twins, which, for important reasons, is less stimulating than that for single-born children. Depending more upon each other than single-birth children do, twins communicate less with adults or older children. They often develop their own gestural modes of communication, which, once established, tend to reduce their need for learning verbal modes of communication. Moreover, they extend the use of these nonverbal means to others in the family, who usually compensate for the twins' slower speech learning by becoming skilled in interpreting the twins' sign language.

The important thing here is that almost all tests of ability require at least some degree of language involvement, while much of what

constitutes achievement in modern life leans heavily on the use of language symbols. Under the circumstances, it is hardly surprising that twins will, on the average, remain slightly lower than single-born individuals in ability.

It seems probable, moreover, that these environmental bases for lower ability, may be partly responsible for the lack of high eminence or social achievement to be found among any important segment of the twin population. For example, Horatio H. Newman, who devoted some effort to searching for eminent twin figures in history, was able to locate a mere handful. Among such twins were the Piccard brothers (scientists of stratosphere balloon fame), and a few twin athletes and performers in the entertainment field. Perhaps the only really historically renowned figure was Thomas, one of the twelve apostles, who is reputed to have been one of a twin.

It is not unlikely, however, that emotional factors, probably relating to the greater interdependency of twins, may also be important. There comes to mind, for example, the Stanley brothers (identical twins), who developed the famous Stanley steamer automobile. It has even been said that had one of them not died, leaving the other to "pine away" and completely lose interest in the perfection of their marvelous machine, automobiles today might be operating by steam instead of gasoline.

Are there any cultural factors that particularly influence the development of multiple-birth individuals?

Few cross-cultural comparisons of twin development, as such, appear to have been carried out, although anthropologists report that, among different cultures, attitudes toward multiple-birth range all the way from high acceptance to complete rejection. Twins are thus sometimes welcomed and accorded special positions as favored representatives of the gods. In other groups they may sometimes be left to die or are sacrificed as portents of evil. Commonly, there are various cultural rituals prescribed to handle the different kinds of attitudes toward twins. It is evident that these differences can seriously affect the general personality development and mental health of twins, for better or for worse, depending upon whether the cultural attitudes tend to lean in a positive or negative direction. Unfortunately, the latter attitudes tend to prevail in more cultures, often resulting from a belief that single birth distinguishes humans from the lower animals, among which multiple birth is typical.

Nor are myths and irrational beliefs regarding multiple birth absent today on the American scene. Parents often believe, for instance, that the twin born first is the superior, smarter, and "older" twin, despite the fact that the difference in age is only a matter of minutes. Perhaps one extreme of this is reached when the first identical twin is named "junior" and the second twin is just named.

NARCOTIC ADDICTION

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What is narcotic addiction?

The Expert Committee on Drugs Liable to Produce Addiction, of the World Health Organization (United Nations), has defined drug addiction as follows: "Drug addiction is a state of periodic or chronic intoxication detrimental to the individual and to society, produced by the repeated consumption of a drug (natural or synthetic). Its characteristics include: (1) an overpowering desire or need (compulsion) to continue taking the drug and to obtain it by any means; (2) a tendency to increase the dose; and (3) a psychic (psychologic) and sometimes a physical dependence on the effects of the drug (often called habituation)."

This definition is scientifically accurate and the reader must remember that it applies to all drugs—not only to those designated in narcotic statutes.

The drugs so abused throughout the world include opium and its derivatives (such as heroin, morphine); codeine; cocaine; marihuana; alcohol; sedatives (such as chloral hydrate, bromides, barbiturates); some central nervous system stimulants (such as amphetamines, like Benzedrine); peyote and synthetic opiatelike drugs (such as methadone and Demerol). The very stringent federal statutes controlling narcotics apply mostly to the nonprescribed use of opium, cocaine, and marihuana, and their natural or synthetic derivatives. The illicit narcotic drug traffic concerns itself mostly with heroin.

What is the history of the care and treatment of the narcotic addict?

From prehistoric time, men have looked for methods to make life more pleasurable and to mitigate or diminish the discomforts that are inevitable in everyday living. The desire to mitigate pain has given us surgical anesthesia, aspirin, alcohol, and other drugs that may cause serious addiction. Man has used opium, marihuana, and alcohol to relieve pain, to diminish anxiety and tension, to produce pleasurable feelings, and even to treat disease. Long before the Christian era opium

was used to treat various illnesses in Egypt, India, and Persia; and it was not until the tenth century A.D. that the drug was introduced into China. As far back as the fifth century B.C. some physicians recommended complete abstinence, undoubtedly basing their recommendations on the addicting (especially the physical dependence) qualities of opium.

Early in the sixteenth century A.D., more attention was paid to the addicting qualities and the lassitude of persons taking continuing large amounts—but it was not until the eighteenth century that serious attention was focused on addiction in England. China enacted a law in 1729 prohibiting the sale and smoking of opium, but it was not until after 1850 that the cultivation of the poppy became extensive in China. Subsequently there was extensive trading in opium with China by many countries, but the English East India Company soon became one of the largest importers of the drug. Chinese opposition to the opium trade led to the First Opium War in 1839, which was settled by the 1842 Treaty of Nanking. This failed to stop the opium trading and eventually because of socioeconomic reasons led to the Second Opium War fought by England and France against China. This second war was eventually settled by the Treaty of Tientsin in 1858, after which China was forced to legalize the importation of opium. By 1900 about 23,000 tons of opium were being cultivated, 300 tons were exported, and about 1,800 tons were imported from India, and there were an estimated 13 million opium smokers in China. The unfortunate and arbitrary intervention that forced opium on China came to an end at the beginning of the twentieth century.

Early in the spread of the opium problem, the United States appreciated the nature and extent of the evils of opium use and took a series of actions designed to stop the spread of the nonmedical use of narcotics. The United States initiated a 100 per cent *ad valorem* tax for opium used in smoking. Subsequently it helped with the problem in the Philippines by prohibiting the importation of opium. An act was passed in 1909 excluding importation of opium into the United States for smoking purposes. In 1906 the United States had asked Great Britain, France, the Netherlands, Germany, China, and Japan to investigate jointly the problem of opium abuse in the Far East. International efforts to control narcotics started with the International Opium Commission representing thirteen nations that met in Shanghai in February 1909. Recommendations to control the growth of the poppy and the manufacture of opium and its addicting products were

developed. Then in 1912, sixty-nine nations agreed to: (1) enact laws for the control of the production and distribution of raw opium; (2) prevent the export of raw opium to countries prohibiting its entry; (3) allow only duly authorized persons to engage in the import and export of raw opium; (4) reduce traffic, gradually but progressively, in prepared smoking opium; (5) restrict the use of morphine and cocaine solely to authorized persons; and (6) encourage enactment of pharmacy laws by individual nations to limit these drugs to medical and other legitimate purposes.

Which factors influence the prevalence of drug addiction?

The causes of drug addiction are multiple. There are sociologic, pharmacologic, and psychologic factors. The sociologic factors include such features as minority group pressures in slum areas and membership in gangs. Psychological studies of addicts reveal a high incidence of personality defects and deviations that antedate the addiction to narcotics and other drugs. Many addicts are actually suffering from psychiatric illness. Less than 5 per cent of addictions are medically induced in patients with a serious chronic or terminal organic disease. Most addicts have serious defects in their character structure or are severely neurotic and in some the drugs provide a means of expressing hostility toward society, parental or other authority figures, or is a confused and devious device of self-punishment.

In December 1961 the United States Bureau of Narcotics estimated that there were about 46,798 narcotics addicts in the United States. In 1955 it estimated that 89 per cent of these addicts used opiates (primarily heroin), and the remaining 10 per cent used marihuana or opiatelike synthetics such as methadone and Demerol; only about 1 per cent used cocaine.

The present rate of drug addiction in the United States is low, having decreased significantly over the past sixty years. The current rate is one-tenth of what it was in 1900.

There have also been changes in the racial and ethnic distribution of the narcotically addicted population. The percentage of Negroes has increased. In 1959 the United States Bureau of Narcotics estimated that 57.6 per cent of active addicts in the United States were Negroes; Puerto Ricans accounted for 8.6 per cent, Mexicans accounted for 6.2 per cent, and other whites accounted for 25.8 per cent.

The ratio of addiction with the sexes has altered since public feeling about addicts has become more hostile. In the latter part of the nine-

teenth century women addicts exceeded men addicts by about two to one. Since the passage of the Harrison Narcotic Act in December 1914, when the illegal possession or use of narcotic drugs became a federal offense, the ratio of women to men has become one to five. This is possibly an indication that women are less inclined to become involved in socially condemned practices or acts.

A large proportion of female addicts in the United States are prostitutes very likely because of the high cost of maintaining themselves on the narcotic drugs. In other words, prostitution is a means of supporting an established addiction.

Although there has been some increase in narcotic addiction among juveniles since 1950, this is not a new phenomenon in the United States. There is evidence that this occurred in 1919, for the records of the New York City Narcotic Clinic showed that maintenance doses of heroin or morphine were given to 7,464 addicts and that 9 per cent of these were under the age of twenty. A study by Isidor Chein and Eva Rosenfeld in New York City concerned with the psychosocial factors that led to juvenile addiction indicated a high incidence in those areas of the city populated by the most economically and socially deprived groups.

Young people who are unhappy, mistrustful of authority, with a "delinquent" orientation to life, are most likely to use the drugs to get a "kick" or a "thrill" or to "feel high." However, juvenile addicts are responsible for only a small percentage of crimes committed by all juveniles.

It is important to emphasize that despite glaring news headlines, the incidence of narcotic addiction has decreased considerably in the United States.

Physicians and nurses are more likely to become addicts, particularly to meperidine, probably because of the greater availability of narcotics to them.

Which narcotic drugs are commonly used?

Heroin is the most popular narcotic among addicts. Other potent favorites are Dilaudid, morphine, and methadone. Addiction to cocaine is rare. Real addiction to marihuana is not common. Addiction to meperidine is also uncommon.

Most addicts in the United States prefer to inject the narcotic drug by vein; whereas opium smoking remains the preferred method among Asiatics.

Addicts obtain their greater (if not entire) supply of drugs by pur-

chase through illegal sources, and such narcotics are diluted, impure, and frequently contaminated.

What are the signs, symptoms, and effects of addiction to narcotics?

Addicts take narcotic drugs because they regard the effects of the drugs as pleasurable, providing either a feeling of muscular relaxation, warmth, or a dreamlike state wherein all worries vanish and all problems can be deferred; or with some drugs, a feeling of "pep," "drive," or pleasurable excitement.

Addicts find, as the experience is repeated, that larger and larger doses are required to produce the desired effects (often called tolerance to the drug).

As the addict continues to use the drug over a period of time, he finds to his dismay that the discontinuance of the narcotic produces a characteristic and unpleasant illness called the "abstinence syndrome" that can be immediately stopped or cleared up by another injection of the drug. This physiological dependence is what really shackles the addict to the narcotic. It is especially true for the opium derivatives.

Heroin addiction is nearly always found in persons with some psychiatric illness or maladjustment, and the continued use of the narcotic almost always leads to further emotional disturbance and more difficult social adjustment. Most addicts appear listless and are content to sit about because their will to work actively is impaired. Most addicts regress in their social adjustment because they lack drive, often are secretive regarding the use of the drug, and often are involved in devious or criminal behavior to obtain the drug—all these add up to moral, physical, and social regression. Morphine does not, however, of itself, increase or release any inner tendencies to commit crimes of violence.

The behavior of the narcotic addict before he develops tolerance to the drug is not significantly different from the normal individual. They are usually pale and poorly nourished because of poor eating habits. Some have scars or needle marks or abscessed skin-thickened wounds along the course of large veins of the arms. Those persons actively using morphine may have very small eye pupils and diffuse muscular tremors.

When addicts are taken "off" the drug they show evidence of the very uncomfortable "abstinence syndrome," which becomes especially prominent about eighteen hours after the drug withdrawal. The intensity of the abstinence syndrome is related to the dose of the narcotic drug the addict is taking at the time he comes under treatment. These

most unpleasant symptoms consist of marked restlessness, nervousness, insomnia, and frequent yawning to which is added increased lacrimation, a drippy nose, and profuse perspiration. After twenty-four to thirty-six hours all these symptoms increase and the subject tosses about in bed, has recurring waves of warmth and chills, muscular twitching of the arms and legs with associated muscle cramps in the extremities, and gets into a characteristic cramped posture in bed. The pupils dilate, the skin exhibits a gooseflesh appearance, appetite is lost, and many subjects vomit and retch and develop diarrhea. Many subjects at this stage have a slight fever and some increase in blood pressure; the height of the discomfort is reached at about forty-eight hours after which all the withdrawal symptoms decline. After the second week of withdrawal only insomnia and general nervousness may persist for three or four months.

The course of abstinence symptoms from other morphine or heroin-like drugs is similar to those described above, varying chiefly in time of onset, intensity, and duration. This is not the case with marihuana smoking, which has fewer addicting qualities.

The addict is subject to many complicating illnesses, such as concomitant addiction to barbiturates, the development of abscesses caused by contaminated hypodermic needles or syringes, and the transmission of bacterial or malarial organisms by contaminated and unsterile intravenous injection equipment.

How can drug addiction be treated or prevented?

All drug addicts must be treated over a long period of time because addiction is a chronic medicosocial illness. The steps in treatment may be outlined briefly as follows:

The addict should be admitted to a hospital. Methods have already been developed in many states for the civil (not criminal) commitment of addicts to designated hospitals for active treatment. It is best to have addicts enter such hospitals voluntarily but many will require involuntary court commitment to keep them in an institution long enough to get real help. Merely going into a hospital to get off the drug, i.e., go through the uncomfortable enforced abstinence syndrome, is not effective treatment, because the addict requires long-term therapy, after the short withdrawal period. Too many relapse into addiction after brief withdrawal treatment procedures.

All this has quite naturally raised the question whether some confirmed drug addicts should have a means of obtaining drugs legally, so

that they will not have to engage in criminal acts to raise the money needed for the drugs—needed to avert the pain of withdrawal. This is a basic question and is related to how we shall deal with the problem of treatment and rehabilitation of the addict.

All physicians will agree that stringent law enforcement (of reasonable and fair laws) has its place in any system of controlling narcotic drugs. However, it is equally apparent that harsher laws are by no means the complete answer to our problems of drug addiction. No one wants to be lenient with the peddler of drugs. He should be dealt with severely. The addict and the addict peddler must be considered in a different category. If we would come to agreement on this simple division, medicine, the law, and the law enforcement agencies could more effectively cooperate to enlighten and guide the public. In view of this let us consider some programs by which medical science and physicians can help the community to cope with this problem.

We shall not consider here the large literature of pharmacology, experimental neurophysiology, drug withdrawal theory, etc. However, some of the present-day needs and problems as seen by a physician recognizing that there can be no single program for the elimination of an illness as complex as drug addiction are:

- 1) Methods should be developed (by medicolegal cooperation) for the civil (not criminal) commitment of addicts to designated civil treatment institutions. Addicts who are guilty only of illegally possessing and obtaining narcotics should be certified by legal commitment for compulsory treatment for an indefinite period (depending on medical judgment and individual patient needs). The same procedure now used for the certification of the chronic mental patient should obtain. Such patients could thus be treated for the withdrawal period, and the much longer psychotherapeutic rehabilitation program over a period of years, if necessary. Some persons have suggested a three-year certification period. An indefinite certification based on the subject's needs, his motivation, his progress in cure or lack of it would be preferable. The same arrangement for medical discharge on parole, available for every other psychiatric patient, should be available to the treated drug addict. Some states have started such programs.

Criminal sentences for illegal sale of narcotics should be retained, but persons who are themselves addicts and who are sentenced for such offenses should have the same opportunity for probation and parole afforded other offenders. There is much legal opinion and some medical evidence that mandatory minimum sentences for addict viola-

tors may hamper treatment and rehabilitation of addicts, and abolishment seems indicated.

Voluntary admissions for the treatment of addiction by certification for a minimal twelve-month period should be encouraged. More practicing physicians need to be educated in the problems of the modern treatment of drug addiction.

2) We urgently need more institutional care programs for the estimated 47,000 drug addicts in the United States: the United States Public Health Service Hospital at Lexington, Kentucky, provides for 1,280 addicts; Fort Worth Hospital in Texas cares for 1,053 patients; Riverside Hospital in New York City cares for 180 patients—a combined hospital patient capacity of approximately 2,513. It is apparent that the medical treatment facilities are inadequate. Combined federal, state, and community resources are the answer in those areas (New York, Chicago, Los Angeles, and Detroit) where the majority of the addiction problems are concentrated.

Let's not put up new buildings but use ones we already have in psychiatric hospital units in these areas.

Addiction characteristically involves: tolerance; physical dependence; emotional dependence. Successful treatment involves two important procedures: first, cure of the physical need for the drug, and second, cure of the mental condition that makes it so attractive.

These treatment units will need a "midway or halfway" facility to be really effective, and the cooperative functions of a special unit such as the Public Health Service Demonstration centers of New York City and Chicago will give us much additional data on the best procedures to be used in a true rehabilitation program. All community agencies and resources are needed to help the addict.

3) Long-term compulsory post-institutional care and treatment is an essential need for the drug addict. Here prolonged, intensive individual and group psychotherapy, social services, and vocational rehabilitation services (including job training and placement) should be given the "recovered, treated addict," after he leaves the closed institutional setting and while he continues on parole status. Experiences at the Riverside Hospital in New York City highlight the need for such a program.

4) The outpatient clinic for the treatment of drug addicts has been the subject of much controversy. The recommendation for such a clinic treatment program has been advocated by the New York Academy of Medicine, and at one time by the New York State

Medical Society, and many other serious medical, legal, and responsible community groups and individuals. It should be stated for the record that a previous trial of such clinics from 1919 to 1923, was not successful and was stopped by the physicians themselves although the details of the success or failure are not entirely convincing in view of the incompleteness of the venture. The American Medical Association's committee (the Council on Mental Health on Narcotic Addiction) that considered the recent proposal felt that "from available evidence at the present time it does not seem feasible to recommend the establishment of clinics for the supply of drugs to addicts."

Many physicians feel that we should move slowly in establishing outpatient treatment clinics throughout the country; but there is a place for a limited experiment to test such a program.

Such an experimental unit (a small unit connected with an accredited university hospital or the United States Public Health Service Clinical Center) should be set up to test this method of treatment under very rigid medical board control (as we do for therapeutic termination of pregnancy for medical reasons), with provision for careful medical supervision that would satisfy even the most skeptical.

Such an outpatient facility being established for drug addicts must be combined with an associated hospital inpatient facility.

Such a research center should be free to try all methods. We cannot legislate research procedures. Doctors and health departments should be the ethical policemen of their own profession.

5) We need more research to guide us to better and more effective handling of the drug addict.

A) We need more medical research in (a) causative factors (biologic, psychosocial, economic); (b) factors causing relapses; (c) the causes of cyclic epidemics of addiction; (d) the neurophysiologic and neuropsychologic factors of addiction; (e) treatment methods of all kinds (using drugs, psychotherapy, etc.); and (f) research in the development of more precise diagnostic tools.

It costs \$5,800,000 a year to treat addicts in our federal prisons. This does not include law enforcement and judicial procedures. By contrast we spend only \$80,000 a year for addiction research at the Lexington (Kentucky) Hospital.

B) We need more legal research in drug addiction (a) to formulate a model law for the civil certification of the addict; (b) to formulate a model law wherein the peddler will be punished severely in penal institutions, but the sick addict dealt with medically in a hospital. (In

New York City when a mentally ill person commits a crime, he can be sent to a mental hospital for care if he is found to be mentally ill. Why cannot the addict be treated the same way?) (c) to continue critical studies jointly—by the American Bar Association, the American Medical Association, the American Psychiatric Association—of federal and state laws with a focus toward implementing medical and social rehabilitation of the addict rather than aiming at punitive degradation as a goal.

C) We need social research on the factors of drug addiction such as (a) studies of the influence of social and cultural attitudes leading to or preventing addiction; (b) the effects of families and other social groups on addiction; (c) the problems of marginal, minority, and depressed economic areas on drug addiction.

G) There is a need for state or regional narcotic commissions to co-ordinate the work of the outlined study and treatment centers. These interdepartmental resources, such as boards at the state level (which should include health, welfare, law and correction, but largely focused on health), could serve to protect the physicians who are helping by research to extend these therapeutic frontiers.

These are some of the problems and the needs in the field of drug addiction as seen by the physician today. Physicians with their inclination to help these sick people have much to offer and we hope that law enforcement will not be substituted for medical care in the treatment aspects of this public health problem.

Medicine, the social sciences, and the law must cooperate to help the drug addict. Perhaps we need the touch of the humanist in all this. For humanism offers much to science and the law, especially in medicine where on occasion the physician finds a still imperfect science sadly inadequate to many of his patients' needs. For in all illness (drug addiction included), fear, anxiety, pain, shame, and uncertainty call for understanding, sympathy, imagination, courage, and companionship. I am certain that these qualities are present in the best of men, be they physicians, lawyers, law enforcement agents, social scientists, or most average Americans. Let us call on these human qualities to encourage independence, originality, honesty, and a graceful humility in understanding and helping our sick fellowmen.

NATIONAL ASSOCIATION FOR MENTAL HEALTH

by EDWARD LINZER

Director, Program Services,

National Association for Mental Health

What is the National Association for Mental Health?

The National Association for Mental Health is the only national, voluntary, citizens' organization working with state and local affiliates in the mental health field, with a program of action for mental health and against mental illness. The National Association for Mental Health includes more than eight hundred state and local affiliates and has national headquarters in New York.

How was it created?

The N.A.M.H. was founded in September, 1950, through the merger of three national organizations. One was the National Committee for Mental Hygiene, founded in 1909 by Clifford W. Beers, a former mental patient. After three years in a mental hospital (1900-1903) Beers wrote the book, *A Mind That Found Itself*, to describe his experiences and to report on the harsh conditions under which the mentally ill of that era were handled. He also expressed his interest in bringing about the establishment of improved facilities to care for the mentally ill and in initiating various measures for the prevention of mental illness. It was Beers's hope that there would develop a national movement with state and local organizations to carry forth the program that he and the other founders of the National Committee visualized.

At the time of the merger, the National Committee for Mental Hygiene included some two hundred state and local mental hygiene societies, which sponsored a broad variety of activities to combat mental illness and to advance mental health.

The other two organizations that merged with the National Committee for Mental Hygiene were the National Mental Health Foundation and the Psychiatric Foundation.

The National Mental Health Foundation, which had cooperated

with the National Committee in a number of activities, was established during World War II by a group of conscientious objectors assigned by the Selective Service System to work in mental hospitals. Appalled by the shocking state of the nation's mental hospitals, this group initiated many programs to arouse the public and also led a major effort to improve the quality, selection, and performance of attendants in mental hospitals.

The Psychiatric Foundation was created primarily to obtain financial support for special projects undertaken by the American Psychiatric Association, one of its founding organizations.

How does it function?

The work of the N.A.M.H. is carried out through its national headquarters and its state and local affiliates. The former operates a national research program and carries on specialized services in such areas as legislation and public policy, education, public information, rehabilitation and aftercare, volunteers, childhood mental illness, organization, and fund raising. These specialized services conduct programs on the national level and provide expert knowledge, guidance, and materials for state and local associations. Affiliated associations provide a variety of community programs on behalf of the mentally ill, offer direct services through volunteers who serve hospitals and clinics, and conduct education, public information, and social-action programs.

How is it governed?

The N.A.M.H. is governed by a board of directors elected by a voting membership of directors and delegates designated by state associations and directors-at-large. A board member receives no financial remuneration for service.

How is it financed?

The entire program of the N.A.M.H., including its eight hundred affiliates, is supported by voluntary contributions from individuals, business firms, and foundations.

The main fund-raising campaign is conducted during May. Featured in this campaign is the Mental Health Bell Ringers' March in which hundreds of thousands of volunteers visit their neighbors asking for funds to support the work of the N.A.M.H. at all of its levels—local, state, and national.

The N.A.M.H. participates with several other national health organizations in a joint solicitation of federal service employees. In many communities the N.A.M.H. and its affiliates obtain support from the United Funds and the Community Chests.

How does it relate to other associations in the mental health field?

The association works closely with all branches of government and hundreds of civic, religious, and fraternal organizations in marshaling full community efforts in a concerted national program in the field of mental health. In its relationship with the governmental services, the N.A.M.H. encourages the creation of, and helps to set up, treatment facilities that are adequate and humane. The association reviews official budgets and programs, supports legislation and appropriations, and stimulates planning for needed services. The N.A.M.H. also maintains close relationships with the psychiatric and allied professions.

What have been its outstanding achievements?

The N.A.M.H. and its predecessor organizations have been responsible for initiating and spearheading many important developments in the mental health field since 1909. Included in these advances are the origination and development of the psychiatric clinic movement, the initiation of the mental hospital inspection program, the compilation of the first lists of psychiatrists and of public and private mental hospitals, the preparation of the earliest bibliography of articles and information about mental and nervous disorders, the development of standard nomenclature of mental diseases, the initiation of a plan to develop the first neuropsychiatric division in the United States Public Health Service during World War I, the enactment of a federal law (National Mental Health Act of 1946) to establish training and research functions within the province of a separate mental health agency, the establishment of student counseling services in colleges, the inauguration of psychiatric training in many medical schools, and the sponsorship of the first comprehensive research program on schizophrenia.

These and other developments that the N.A.M.H. initiated in concert with governmental agencies and various mental health professional organizations account for many of the services now in existence in communities throughout the United States for improved care, treatment, and rehabilitation of the mentally ill.

What are the immediate goals of the National Association for Mental Health?

The immediate goals of the N.A.M.H. are to help bring about: improved care and treatment for state and private mental hospital patients, affording to as many as possible the benefits of modern treatment methods, and with special provisions for mentally ill children; increase in psychiatric services in general hospitals to afford immediate treatment to a larger number of patients in their own communities without need of legal commitment and with all the medical advantages offered in a general hospital; increase in outpatient psychiatric facilities for early detection and treatment; increase in services for social, vocational, and medical rehabilitation of discharged patients to help more of them stay well; increase in programs of public information to reduce fear and prejudice and to increase knowledge about mental illness and about treatment methods and facilities.

What are its long-range goals?

The major objectives of the N.A.M.H. are (1) to bring about excellent facilities for diagnosis, treatment, and rehabilitation of persons suffering from mental disorders, at the earliest stage of their illness; (2) to achieve more positive attitudes on the part of the public toward the mentally ill; and (3) to promote, reinforce, and help maintain mental health.

The N.A.M.H. will work for the development of a multiplicity of services in local communities to provide prompt, accessible help to the mentally ill as an alternative to hospital care. For those patients for whom care in state mental hospitals is required, the N.A.M.H. will strive for a better quality of care and treatment in smaller institutions that provide individual care and more humane treatment; for legislative methods that assure suitable commitment procedures; for personnel to overcome the acute manpower shortage in the field, and for research into all aspects of mental illness.

In achieving the second goal, the N.A.M.H. will work for more enlightened public attitudes so that the current fears and misconceptions that separate the mentally ill and the formerly mentally ill from the rest of society will gradually be lifted. The N.A.M.H. will strive to win public support and participation in programs to help people recognize and understand mental illness so that they may know how to deal with it and, without prejudice, to help its victims.

The advancement of mental health principles is the third major

interest of the N.A.M.H. Such an effort will seek new knowledge or support existing knowledge about the dynamics of human behavior and interpersonal relations in order to discover means by which mental and emotional disorders may be prevented and mental health advanced.

What publications does the National Association for Mental Health produce?

The N.A.M.H. publishes numerous books and pamphlets covering a wide range of subjects dealing with mental illness and mental health and with the emotional problems of living. Some of its outstanding publications are *Mental Illness: A Guide for the Family*; *Mental Health is 1, 2, 3*; *Because you like people . . . choose a career in Mental Health*; *New Trends in the Care and Treatment of the Mentally Ill*; *Some Special Problems of Children—Aged 2–5*; *Teacher Listen—the Children Speak*.

The association has also produced a number of documentary motion pictures and dramatic sketches dealing with mental health and mental illness. It issues a professional quarterly, *Mental Hygiene*, and various scientific and statistical studies.

What information service does it offer?

The N.A.M.H.-sponsored information services provide the latest community information on available treatment, counseling, and guidance services for people with mental and emotional disorders. This information is of invaluable assistance to individuals seeking help and to their families. It is also of value to schools, welfare agencies, doctors, lawyers, law enforcement officers, the courts, and business firms that may need to refer people for treatment, counseling, and guidance. Information is provided through direct personal consultation, by telephone, and by personal correspondence.

What service does it provide to families of the mentally ill?

The N.A.M.H. helps relatives of the mentally ill to locate and use appropriate treatment resources for the patient. Also through individual consultation, group discussion, and publications, people close to the patient are helped to understand what is happening and what they can do to speed the patient's rehabilitation after discharge from the hospital.

Since 1942, the N.A.M.H. has produced and distributed *Mental Ill-*

ness: A Guide for the Family by Edith M. Stern, a basic handbook that gives information and guidance needed by families before, during, and after hospitalization of a relative.

What services does the National Association for Mental Health provide for professional persons?

The N.A.M.H. provides the entire mental health field with accurate, scientific data, and co-sponsors, with the American Psychiatric Association, the Joint Information Service, which issues frequent newsletters containing statistical and other factual information.

The association's publication, *Mental Hygiene*, serves the psychiatrist, social worker, psychologist, and other professionals working in mental health. State and local Mental Health Associations sponsor educational programs about mental health subjects for public health nurses, general medical practitioners, clergymen, teachers, social workers, and others.

What services are provided for mentally ill children?

In 1962, the National Organization for Mentally Ill Children consolidated with the N.A.M.H. and, as a result, the N.A.M.H. works in the area of childhood mental illness, with emphasis on separate and adequate treatment services for children in mental hospitals, residential treatment centers in the community, special schooling adapted to the needs of mentally ill children, and research on causes, treatment, and prevention of mental illness in children.

What is the National Association for Mental Health research program?

The research program of the N.A.M.H. dates back (through its predecessor, the National Committee for Mental Hygiene) to 1933, when it initiated in co-sponsorship with the Thirty-third Degree Scottish Rite, Northern Masonic Jurisdiction, a comprehensive, coordinated program of research on schizophrenia, the most prevalent of the serious mental illnesses. This program continues today and has supported scores of research projects. The N.A.M.H. Research Foundation carries on a consolidated program of research to study the basic functions of human behavior so that findings may be applied to the treatment of the mentally ill, the rehabilitation of the mentally ill, and the promotion of mental health. It also allocates funds to appropriate research programs and projects, as well as fellowships for medical students interested in research in this area.

THE NATIONAL INSTITUTE OF MENTAL HEALTH

by ROBERT H. FELIX, M.D.

Director, The National Institute of Mental Health

What is The National Institute of Mental Health?

The National Institute of Mental Health is the principal Federal agency responsible for conducting a comprehensive and integrated attack on the mental illnesses by:

- Assisting in the development of State and Community mental health services through grants-in-aid to the states, mental health project grants, and by providing consultation and technical assistance.
- Supporting and conducting research related to the causes, prevention, and treatment of mental illness.
- Supporting the training of psychiatrists, psychologists, psychiatric social workers, psychiatric nurses, and other mental health workers.

The NIMH is one of the seven National Institutes of Health of the Public Health Service, Department of Health, Education, and Welfare, located on a 306-acre site in Bethesda, Maryland, just outside of Washington, D.C.

Established in 1949 under the authority of the National Mental Health Act passed by Congress in 1946, it is financed solely by congressional appropriations, which have grown from \$4,450,000 in fiscal year 1948 to more than \$108,000,000 in 1962.

Why was the NIMH created?

The main function of the Mental Hygiene Division of the Public Health Service, which was established in 1930, was to administer two hospitals concerned with the treatment of drug addicts, and with the study of drug addiction. During the 1930's, however, there was increasing public and professional recognition of the need to deal more adequately with the nationwide public health problems presented by the mental disorders.

This need was brought into sharp focus during World War II, when

the Selective Service System rejected some 900,000 men between the ages of 18 and 37 because of neuropsychiatric disorders, and when an additional 700,000 men were discharged from the Armed Forces because of such disorders. These wartime experiences, and the efforts of dedicated professionals, educators, civic and religious leaders, led to the passage of the National Mental Health Act in 1946, to the establishment of the National Institute of Mental Health, and to the development of the Institute's broad national program.

How many professionals work at the NIMH?

The Institute employs about 380 full-time professionals in a variety of medical, health, and scientific areas. A little over one-fourth of the 380 professionals are physicians, of whom one-third are psychiatrists, and one-fourth are psychologists. The others are highly trained physical, biological, and behavioral scientists, mathematicians, social workers, psychiatric nurses, and science administrators. The Institute employs about 850 full-time employees in all, and an additional 275 part-time employees. Of the latter, 200 are persons expert in various medical, scientific, or professional fields and are employed only intermittently as consultants or advisers.

How has the Institute developed its program?

The Institute is concerned with the expansion of mental health programs and the application of current knowledge in effective ways. It also needs to develop new programs and approaches in areas not receiving adequate attention and to increase the basic and applied knowledge for dealing with emerging problems.

For these purposes the Institute carries on continuous program development activities in areas of significance for the entire field of mental health. The Professional Services Branch is responsible for identifying problem areas of importance to the mental health field and for the initial staff work directed toward understanding the problems and, eventually, solving them. Work in a particular area usually begins by a survey and evaluation of current knowledge and activities in the field. This survey is followed by the development of grant-supported research, pilot studies or demonstrations buttressed by the necessary staff work, and further evaluation of the field. The relevance of mental health concepts and the techniques applicable to the particular problem are carefully considered, and, as program solutions are developed, they are integrated into the Institute's operating programs—

training, research, and community services, and through consultation and technical assistance to public and private programs throughout the country.

Some of the areas that are currently receiving consideration and in which varying degrees of progress have already been achieved are: (1) alcoholism, (2) juvenile delinquency, (3) mental health in the school and college, (4) accident prevention, (5) the impact of urban and suburban life on mental health, (6) problems of communication in the mental health field, and (7) industrial mental health.

All of these program development activities have significance not only for the Institute's own program but also provide a focal point for nationwide interest in a particular problem area.

Other approaches to program development having both Institute and nationwide importance are made possible by the existence within the NIMH, of the Mental Health Study Center, the Biometrics Branch, and the Publications and Reports Section.

The Biometrics Branch gives major consideration to epidemiological studies concerned with the conditions affecting the rate of hospitalization or requests for other kinds of mental health services. It is concerned also with the ways in which mental health services, both inpatient and outpatient, are utilized, and factors determining length of stay in hospitals of various categories of patients. In addition to other types of activities and investigations, the accurate, adequate, and consistent collection of data is required to make possible a public health approach to mental health problems. To fill this need, the Biometrics Branch of the Institute plans and conducts biostatistical studies of mental illness. It collects and publishes data on the hospitalized mentally ill and mentally retarded, and on the population under treatment in outpatient psychiatric clinics. The Biometrics Branch also provides consultative assistance to State mental health and mental hospital authorities, and to individual hospitals and clinics developing statistical reporting systems or formulating plans for special studies.

The Mental Health Study Center, located in Prince Georges County, Maryland, is organized as a pilot plant for the application of public health methods in the field of community mental health. The Center investigates, develops, and evaluates methods of integrating mental health activities into the life of the community. It studies social factors affecting emotional adjustment and ways of cooperating with professional groups for the improvement of mental health in the community. It also is a major research organization concerned with the epidemiol-

ogy of mental illness, and with the study of special problems, such as the adolescent culture. It is planning to provide training to Public Health Service personnel as well as to other mental health workers in the approaches to community mental health service and research.

Since public knowledge and understanding about mental health and mental illness are essential to the success of the Institute's total program, a broad program of education, utilizing all of the communications media, is planned and carried out by the Publications and Reports Section of the Institute. This Section prepares pamphlets, study kits, leaflets, brochures, reference lists, exhibits, and special displays for professional and lay audiences on mental health subjects. These and appropriate educational publications prepared by other organizations are distributed to groups and individuals throughout the country on request.

What are the Institute's research interests?

With improvement of the mental health of the people of the United States as its goal, the Institute may support or conduct research on any problem related to mental health or the mental illnesses. Provisions may be made in the research program for clinical and applied studies as well as for basic research in related physical, biological, and behavioral sciences. These investigations involve a broad range of scientific disciplines and may be conducted and supported not only in the Institute's own laboratories and clinical facilities, but also in medical schools, in universities, and in other non-Federal research centers throughout the country.

There is no major mental disease or disorder which is not now being studied with NIMH funds, either in its own research programs or in the programs supported by research grants. Since 1948, however, research in certain major program areas have received more support than has research in other areas. Research in schizophrenia, for example, received 29 per cent of all funds awarded for research between 1948 and 1960, and research in psychopharmacology received 19 per cent of these funds awarded during these years. Other major program areas where funds have been awarded for research are: aging, alcoholism, drug addiction, juvenile delinquency, and mental retardation.

In addition to the program areas listed above, clinical problems being investigated include: the psychoses, other than schizophrenia; the neuroses; child behavior disorders; and psychosomatic disorders. These

studies deal with the problems of the etiology, symptomatology, diagnosis, treatment, and prevention of the mental disorders.

Basic studies are also supported and conducted in such areas as child development, aging, perception, motivation, personality, learning, socialization, genetics, biological correlates of behavior, and the biochemistry and physiology of the central nervous system.

The Institute also has a special program, the Mental Health Project Grants program, which provides support for experiments, demonstrations, and studies that will lead to the improved care, treatment, and rehabilitation of the mentally ill through new techniques or improved administration. This program is described in greater detail in the section of this article dealing with the Institute's community services programs.

In recent years, long-term grants extending over a number of years have been supported in increasing numbers. And, in 1961, grants designed to give impetus to the development of properly staffed and fully equipped centers for clinical research and clinical programs were awarded for the first time. These grants may involve a number of investigators, and are directed toward large problem areas rather than one specific problem. The grants awarded under this program have focused on broad programs of research in childhood schizophrenia, in the psychoses, in mental retardation, in psychobiological research, in the problems of psychosomatic medicine, and in studies relating to alcohol.

Within its own laboratories and clinical facilities, the National Institute of Mental Health carries on an extensive program of clinical investigations and of laboratory research designed to expand fundamental knowledge of the nervous system and of human behavior. The principal facilities used for these purposes are: (1) the Clinical Center, the 500-bed research facility that houses the clinical research programs of the NIMH and the other Institutes, and contains about 75 beds for psychiatric patients; (2) the William A. White Pavilion, a 225-bed facility at Saint Elizabeths Hospital in Washington, D.C., which houses the Clinical Neuropharmacology Research Center operated as a joint program by the Institute and the Hospital; and (3) the Addiction Research Center, a field station of the NIMH located at the Public Health Service Hospital in Lexington, Kentucky, the site of clinical and laboratory studies of drugs and drug addiction. In addition to these clinical and laboratory facilities, the Mental Health Study Center pro-

vides a setting for the study of important mental health problems in a community.

In its own research program, the Institute laboratories emphasize physiological, pharmacological, and biochemical as well as psychological, social science, and psychiatric investigation. Clinical studies currently being conducted are concerned with the developmental processes, with psychotherapy, with schizophrenia, and with psychosocial stress.

The Section on Theoretical Statistics and Mathematics of the Biometrics Branch assists scientists in the Institute's laboratory and clinical research programs by consulting with them on the application of the most recent statistical methodologies in the design and analysis of experiments and surveys.

How is a research grant made?

The details of how a research grant is processed are technical in nature, and are explained in printed brochures for which all interested applicants should write. Requests should be addressed to the Division of Research Grants, National Institutes of Health, Bethesda, Maryland.

In general, the scientist who is interested in securing support for his research in mental health is requested to describe his proposed study on forms supplied by the National Institutes of Health. Every such proposal is reviewed twice by groups of outside consultants.

Initial review of all grant applications to the National Institutes of Health is done by a series of consultant panels called "study sections," of which at the beginning of 1962 there were over sixty. They are organized in part by scientific discipline and in part by specific problem areas within scientific disciplines, and for each research proposal the most appropriate study section is selected.

The non-Federal scientists who are members of these study sections are leaders in their special fields. Each study section meets three times a year and on these occasions reviews systematically all of the proposals laid before them. Many of the proposals require that one or more members of the study section visit the applicant's institution to secure further information about the nature of the proposed study. Although a research grant application submitted to the NIMH can be reviewed by any one of the study sections, the bulk of the proposals are actually reviewed by study sections concerned with the subject matter of psychiatry, psychology, and other behavioral sciences, and the biological sciences concerned with the nervous system.

In evaluating research proposals, the essential criteria are the qualifications of the principal investigator, the adequacy of the research facilities, the scientific merit of the proposal, and the significance of the research idea.

Each study section reaches its decisions objectively and submits its professional recommendations and priority judgment concerning a particular proposal to the National Advisory Council of the Institute within whose area the research falls. Those relating to mental health are brought before the National Advisory Mental Health Council, a group of twelve individuals from outside the Federal Government who are distinguished in the fields of medicine, science, education, and public affairs.

It is the Council's responsibility to advise the Surgeon General of the Public Health Service on matters pertaining to mental health. It reviews all grant applications, and a grant must be favorably recommended by the Council before it can be awarded by the Surgeon General.

What are the Institute's training programs?

The NIMH training programs are designed to meet the growing demand for more and better qualified mental health personnel. The training programs include four principal types of support: training grants, traineeships, research fellowships, and research career awards.

Training grant funds—awarded to universities, hospitals, clinics, and schools of medicine, nursing, social work, and public health—support institution training programs at the graduate level in psychiatry, psychology, social work, psychiatric nursing, and the biological and social sciences. These institutions can apply for funds both to support teaching personnel and to provide traineeships to individual students being trained in one of the mental health disciplines.

A number of different types of research fellowships, awarded directly to individuals, are administered and supported by the Institute.

Mental health fellowships with varying stipends are available to promising graduate students, to young scientists, and to experienced scientists who need additional training. Individuals may apply for fellowships through any institution—university, hospital, clinic, or public agency—that provides sound research training. Research fellows are trained in biological, psychological, and social sciences relevant to mental health.

Research Career Awards were established to strengthen mental health

research by providing for positions in which scientists are free to engage in research and related activities. One type, the Research Career Development Award, assures outstanding scientists of continued support reasonably early in their careers and provides for additional research training. Research Career Awards, on the other hand, are intended to stabilize permanent positions for experienced and well-qualified investigators.

In addition to the programs listed above, the Institute supports several additional types of training. First, it supports the training of non-psychiatric physicians who wish either to increase their knowledge of, and skill in dealing with, psychiatric problems through relatively short-term training, or to embark upon a program of psychiatric residency training. Second, it awards training grants to undergraduate medical schools to enable them to improve and to expand the psychiatric instruction offered their undergraduate medical students. Finally, support is also provided for pilot projects designed to develop training programs in such specialized areas as juvenile delinquency, mental retardation, and aging, and to incorporate mental health content into the training of teachers, lawyers, and clergymen.

How do the community services programs operate?

One of the Institute's major goals is to help the States and Territories develop comprehensive community mental health programs, which ideally should include all the following six areas of service:

The first area is concerned with the early diagnosis and prompt treatment of mental and emotional disorders and embraces all of the various clinical services which are available. To be fully effective, the agencies and individuals providing these services must work closely together in a coordinated fashion.

A second essential area includes follow-up and rehabilitative services for persons returned from inpatient psychiatric care, or under foster home or similar care. During the past few years, there has been increased emphasis on these activities, as well as on services for the mentally ill person residing in the community.

A third component is the provision of consultant services to schools, courts, public and private health and welfare agencies, and other "gatekeepers" in the community. Such consultation enables professionally trained people in the community to incorporate mental health principles and practices in their everyday relationships and work with others.

A fourth essential is public education. This includes public information and education programs which utilize the mass media, as well as education activities conducted in small groups.

A fifth component of a community mental health program is social action research—research to find answers to those social factors in the community that contribute to the mental and emotional disorders, and to try out and evaluate the effectiveness of new or unique mental health programs designed to meet the needs of a community.

A sixth essential component involves efforts to prevent mental illness. These efforts imply not only the reduction of those factors that tend to produce mental and emotional disturbances, but also the provision of a community climate in which each person has an opportunity to develop his potentialities as a human being.

The Research Utilization Branch of the NIMH has stimulated and promoted the development of such programs through financial grants-in-aid, by administering the Mental Health Project Grants program designed to develop improved methods for the care of the mentally ill, and by providing professional and technical assistance to State and local agencies and institutions with mental health programs.

Allocation of Federal funds to the States and Territories under the grants-in-aid program is made on the basis of a formula that takes into account the State's population and financial need. Although, under the regulations implementing the Act, all States must match every dollar of Federal aid with one State dollar, in practice the States go much further. In 1961, total Federal, State, and local funds budgeted for community mental health services amounted to \$91,000,000, of which \$6,000,000—less than seven per cent of the total—were contributed by the Federal Government. Ten years ago, Federal funds accounted for twenty-seven per cent of total budgeted funds.

An additional means of developing programs and techniques to help the mentally ill is provided by the Mental Health Project Grants, authorized by Title V of the Health Amendments Act (Public Law 911), passed in 1956.

Projects supported by this program may take the form of demonstrations, pilot projects, surveys, conferences, administrative research, and experimental studies. Projects may be concerned with: new methods and concepts of treating patients; methods of prevention and the early detection of mental illness; effective and economic alternatives to hospitalization; rehabilitation and reintegration of discharged patients into the life of the community; public education in mental

health; ways to utilize more effectively community mental health agencies; ways to improve the therapeutic effectiveness of mental institutions, and the role of private psychiatric personnel and facilities.

Public and private agencies and institutions, hospitals, research facilities, educational institutions, and individuals are eligible for support through such grants.

In addition to grants to States and Mental Health Project Grants, the Institute provides consultation services to plan and evaluate State mental health programs, serves as a clearinghouse for information, and helps the States with the inservice training of staff members. At the request of a State governor, the Institute conducts surveys on mental health problems of special concern to the State. In addition, the Institute helps plan and support conferences on mental health problems important to the States. Conferences have helped develop programs on various aspects of alcoholism, criminality, clerical and lay leadership in promoting mental health, school mental health, and industrial mental health.

In general, the community services programs are designed to disseminate new knowledge about mental health and encourage its application, to expand preventive mental health programs, and to integrate mental health activities into the life of the community.

What have been the Institute's past accomplishments?

The years since the National Mental Health Act was passed in 1946 have been characterized by great activity and unprecedented progress in the mental health field. However, a nationwide problem such as mental illness can be solved only by the sustained efforts of many different groups and individuals, and to the Institute's efforts have been added the talents and energy of thousands of dedicated professionals, legislators, and laymen.

In general, the National Institute of Mental Health, since its establishment, has contributed significantly to almost every important development in the mental health field. It has served as the focal point for the Federal Government's activities in this field, and has used its resources to focus national attention on mental health problems, to expand and improve research efforts in all parts of the country, to train large numbers of additional professional people, and to help the various States and Territories as they sought to improve their own programs.

Speaking generally, and without reference to the specific contribu-

tions of the NIMH, some of the more outstanding examples of recent progress in the mental health field are:

. . . . In 1950, 340 persons out of every 100,000 persons in the country were patients in a public mental hospital. By 1961, this rate had decreased until only 291 persons out of every 100,000 were patients in such hospitals, a decrease of 49 per 100,000 persons.

. . . . In 1949, the average expenditure per patient day in a public mental hospital was \$1.72. In 1960, the average expenditure per patient day was \$4.72.

. . . . Following the discovery in the mid-1950's of the usefulness of the psychoactive drugs in controlling the symptoms of some of the mental disorders, the atmosphere of the public mental hospitals has been greatly improved. More and more hospitals have unlocked the doors of their wards and become "open" hospitals, and the number of patients released from mental hospitals after a relatively short period of treatment has been greatly increased.

. . . . The concern of the general public for the care and treatment of the mentally ill has been demonstrated in very concrete ways: thousands of citizens now work, as volunteers, in schools for the retarded and hospitals for the mentally ill.

. . . . A great deal of experimentation leading to the development of new types of mental health services has occurred. These may be grouped together under the term "community psychiatry," and include services that provide for less than round-the-clock hospitalization—day and night hospitals, emergency psychiatric services, and aftercare and rehabilitation services.

. . . . In 1946, there were only 471 outpatient psychiatric clinics in the entire country. By 1960, this number had grown to 1,505.

. . . . While in earlier years most general hospitals did not admit patients with a psychiatric diagnosis, by 1958 more patients with a psychiatric diagnosis were admitted to general hospitals than to public mental hospitals.

. . . . The number of persons working in the mental health field has greatly increased since 1948. By 1960, the training programs of the NIMH had grown until 2,526 persons were being supported on trainee stipends in 328 training programs.

. . . . Since the end of World War II, the amount of research being done in the mental health field has greatly expanded. Between the fiscal years 1948 and 1960, the NIMH made 4,044 research grant awards, for a total expenditure of over \$76,000,000. Funds available for NIMH research grants have increased steadily, and it was estimated that net expenditures for research grants in the fiscal year 1962 would be approximately \$41,500,000.

What are the Institute's future goals?

The Institute sees its future in terms of several major goals. These are:

1. To continue to search for an understanding of the causes of the mental disorders, and to try to develop effective methods and techniques of treatment.
2. To stimulate the full application on the State and local level of the knowledge we now have concerning the most effective way of dealing with the mental disorders, both acute and severe, chronic and disabling.
3. To improve and to expand training in the mental health professions and in the allied scientific disciplines so that serious shortages of mental health personnel may be alleviated.
4. To promote sound attitudes toward the mentally ill, to disseminate information concerning the mental illnesses, and to help citizens develop constructive ways of dealing with them in their daily lives.
5. To anticipate and to plan for the special and unforeseeable mental health problems that can develop with surprising rapidity in a complex society such as ours.

How do the programs of the NIMH fit into the other health activities of the Federal Government?

The programs of the NIMH are designed to implement the overall objective of the National Institutes of Health, which is to find ways of controlling today's major killing and crippling diseases. Besides the mental illnesses, these include cancer, heart diseases, neurological diseases and blindness, arthritis, metabolic diseases, allergies, infectious diseases, and dental and oral disorders.

The importance of achieving this objective became apparent when, as a result of better sanitation, nutrition, and improved medical treat-

ment, the public health problems of the nation changed. It was found that more people were becoming subject to the ills of an aging population—the so-called chronic diseases. It was recognized that their eventual control would require greatly expanded research facilities and programs, as well as many more persons trained to do research in the life sciences, and to apply what had been learned to clinical and public health problems.

Accordingly, what had formerly been the relatively small Hygienic Laboratory of the Public Health Service became, in 1930, the National Institute of Health. Since then it has grown from a small organization housed in three buildings in downtown Washington to an agency employing over 9,000 persons. In 1948 it became the National Institutes of Health, and since 1950, appropriations for the NIH have increased from 46 million dollars to 737 million dollars in 1962. In addition to conducting research and clinical studies in its own facilities, the National Institutes of Health support research conducted throughout the United States and abroad.

The objectives and programs of the NIH are related to the programs and objectives of the Public Health Service (PHS) in much the same way that the mental health programs are related to those of the NIH. That is, the NIH function as part of a larger unit—in this case, as one of the four bureaus of the Public Health Service, which includes the Office of the Surgeon General. The other two operating bureaus are the Bureau of Medical Services and the Bureau of State Services.

The Bureau of Medical Services is primarily concerned with developing and directing certain medical care and health services programs, and with preventing the introduction of disease and the entry of mentally and physically defective aliens into the United States.

The Bureau of State Services gives general direction to programs designed to aid the States and communities in establishing and maintaining effective programs for the prevention, treatment, and control of diseases, and for the maintenance of health.

Speaking in very general terms, the Public Health Service is responsible for protecting and improving the health of the people of the nation, and for collaborating with governments of other countries and with international organizations in world health activities. To maintain direct contact with State and local authorities, with field offices of other Federal agencies, and with other official and non-official organizations concerned with its activities, the Service maintains a staff

in eight of the nine regional offices of the Department of Health, Education, and Welfare.

In addition to the programs of the National Institutes and the other operating bureaus of the Public Health Service, other health activities and related programs are conducted by the Department of Health, Education, and Welfare through the Social Security Administration, the Office of Vocational Rehabilitation, and the Food and Drug Administration.

Other agencies of the Federal Government offering various types of health services are the Veterans Administration and the Department of Defense with its three military medical services. Other Federal Agencies with programs of support in medical research include the Atomic Energy Commission, the National Science Foundation, and the Department of Agriculture. The Institute maintains close relationships with these agencies as well as with non-governmental professional and voluntary organizations with similar goals.

NERVOUS BREAKDOWN

by SHIRLEY A. STAR, P.H.D.

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What is a nervous breakdown?

A "nervous breakdown" is a popularly used but ill-defined term referring to any one or more of a variety of disorders recognized by psychiatrists—though frequently not by laymen—as mental or emotional illnesses.

Does this term have any real meaning today?

Yes and no. The term nervous breakdown is not used in technical discourse and is not in general synonymous with or easily translatable into any technically acceptable diagnostic terms or categories. Still, the laymen who employ the term—and almost all laymen are familiar with it—have something quite definite in mind to which they are referring. This statement and all statements about lay thinking, ideas, and beliefs which follow are from the as-yet-unpublished research being conducted by the writer. Nevertheless, there are substantial differences among laymen in what they mean and understand by the term. As a result, its use is ambiguous and contributes its share to the many misunderstandings and confusions of the mental health field.

What are the characteristics of a nervous breakdown?

The main characteristic uniting all usages of the term nervous breakdown (both those discussed here and those omitted from this discussion) is that the term always appears to have reference to an acute illness or phase of an illness. A nervous breakdown is essentially that rather dramatic period that occurs in some mental illnesses when the sick person has first "decompensated," that is, has lost his ability to continue to function at his previous level of adjustment and given up the effort to maintain a facade of doing so. The key element in a nervous breakdown is, therefore, a kind of collapse. The grinding to a halt of an organized system or a complicated piece of machinery that

had previously been functioning, with whatever inefficiency, is usually part of the image evoked by the term.

Where are the major differences in the way the term nervous breakdown is popularly used?

Because the main common thread uniting all uses of the term is the belief that a physical collapse occurs, nervous breakdown has been used to refer to any mental or emotional disorder (or any single episode of such illnesses) that happens to have an acute onset phase. Thus it turns out that (depending on who is using the term) the illness being referred to may be psychiatrically diagnosable into any of the major technical categories of "Disorders of psychogenic origin or without clearly defined physical cause or structural change in the brain": these are "psychotic disorders," "psychophysiologic, autonomic, and visceral disorders," "psychoneurotic disorders," "personality disorders," and "transient situational personality disorders." This classification of mental disorders was officially adopted by the American Psychiatric Association in 1952.

There are, in current popular use, however, two major ways of defining nervous breakdown.

The first, and less often used, consciously equates nervous breakdown with an acute psychosis or psychotic episode, that is, the term is employed as a euphemism for what psychiatrists might refer to as a "psychotic break (with reality)," a "psychotic breakdown," or simply a "breakdown."

In the second, and more frequent, usage, nervous breakdown is meant to refer to a particular illness whose onset, manifestations, and course are popularly believed to be well understood. Leaving aside for the moment the matter of the scientific accuracy of these beliefs, the illness most frequently referred to as a nervous breakdown may be here dubbed the "exhaustion syndrome," and its development may be described about as follows:

As a result of such realistic, external difficulties as overwork and the cumulative impact of financial problems, family difficulties, and other such pressures of everyday life, an individual is seen as becoming progressively more fatigued. If the pressures continue unremittingly, chronic fatigue becomes exhaustion, and exhaustion precipitates collapse, so that the afflicted person is "too tired to go on" and takes to his bed. In the course of the depletion of what is presumed to be the

individual's *physical* reserves, there is a concomitant diminution of his capacity for self-control, a loss that accounts, on the one hand, for the individual's inability to "force himself to go on" and, on the other, for the secondary symptoms by which persons with nervous breakdowns are usually thought to be characterized: (1) tenseness, jumpiness, restlessness, inability to relax; (2) irritability, excitability, touchiness, oversensitivity; and (3) easy, excessive, or unprovoked weeping.

Whatever the further details of the symptomatology, it is generally felt that the prognosis for this illness is good: it is viewed as a temporary and relatively brief illness from which the patient recovers without much special care. A few days or weeks of bed rest alone, during which the sick person gains both the time to replenish his physical resources and a moratorium on his responsibilities, is frequently felt to be the only treatment required.

In the most popular view, then, a nervous breakdown is thought to be an illness of known etiology and definite course and can be summed up as:

external pressure → exhaustion → collapse → rest → recovery

Is the exhaustion syndrome a valid formulation of a recognized illness?

No, not really. Except in times and situations of great social stress (wars, bombings, disasters, etc.), psychiatrists rarely see adult patients whom they would diagnose as having a purely "transient situational personality disturbance," as in the disorders called "gross stress reaction" and "adult situational reaction." (Even then, psychiatrists would not generally agree that rest and temporary withdrawal from the stressful situation was sufficient treatment.) Instead, most of the persons popularly thought of as victims of the exhaustion syndrome would be psychiatrically regarded as individuals with deep-seated, chronic emotional disorders that were currently manifesting themselves acutely.

Thus, a psychiatrist might raise such questions as, "Why is the person permitting—or even driving—himself to overwork?"; "Why is the person overwhelmed by problems that other people meet easily as minor incidents of living?"; "To what extent has the person manufactured his problems for himself—by, for example, unrealistic ambitions, unwise expenditures, unsuitable marital choices—and then maintained or exacerbated them by refusal or inability either to see his own role in his difficulties or to take steps to extricate himself from them?"

In other words, the "precollapse" personality of the nervous breakdown sufferer is a major immediate causal factor in the breakdown, and the factors that shaped that personality, making it or its possessor more than usually fragile (and this is only another way of saying that a personality disorder exists), are many, varied, and far removed from the immediate situation that may have precipitated the acute attack.

Unfortunately for the believers in the exhaustion syndrome, once the idea that its etiology is so straightforward and external to the individual psyche is given up, it follows that the optimistic view that a period of rest will suffice also loses its plausibility. Then all one is left with is a symptomatic description—chronic fatigue, tension, irritability, weepiness, collapse—of the acute phase of an emotional disturbance that could be the acute manifestation or emergence of almost any emotional disorder: a menopausal psychotic depression, some forms of schizophrenia, what used to be called neurasthenia; in short, a regressive manifestation of any personality disorder.

Given its imprecisions, why does the term nervous breakdown remain popular?

Perhaps the term remains popular just because its imprecisions allow glossing over the facts about mental illness. It may come as something of a surprise in view of the foregoing depictions of nervous breakdown, but, in 1950 at least (the most recent date for which data are available nationally), not quite half (48 per cent) of the adult American population were aware that what they were describing as a nervous breakdown was without hesitancy classified as mental illness by persons with technical training. And, there was greatest denial of mental illness whenever the term nervous breakdown was identified with what has been dubbed here the exhaustion syndrome. For the emphasis on the physical or organic in the causes, symptoms, and treatment of nervous breakdown (overwork, fatigue, collapse, rest) easily lends itself, among persons not accustomed to thinking psychosomatically, to the conclusion that the sickness is indeed a physical one or at the very least a nervous system disorder, but, in any case, quite different from mental illness.

The ideological advantages of this mode of thought to a population in which there remain both a great deal of fear of mental illness and a strong tendency to stigmatize sufferers therefrom should be obvious: the sick person can be dealt with without fear, and once he "pulls himself together" and resumes his former level of functioning, he is re-

garded as well and is not particularly stigmatized for his breakdown. Even when nervous breakdown is perceived by laymen as mental illness, some of this thinking carries over, partly by association but more pointedly because the identification of nervous breakdown as an acute illness conveys a sense of greater transiency and more certain and more complete recovery. In the short run, at any rate, the term nervous breakdown has served a useful social function in supplying a respectable cover and a respectable explanation for illnesses that might otherwise have to be recognized as the mental or emotional disorders that they are.

What are the most cogent reasons for abandoning the use of the term nervous breakdown?

It could be said that the very inaccuracy and ambiguity of the term is reason enough to abandon its use. The term is false to whatever definite knowledge about mental illness the field of psychiatry has painfully acquired, so why perpetuate error? Still, the term has a certain value as a polite fiction facilitating social relations, so why not benefit from it? The long-run consequences of such short-run thinking in the mental health field are so serious that, at the risk of belaboring the obvious, three of them must be reiterated.

First of all, of course, polite fictions such as nervous breakdown perpetuate and even strengthen the beliefs for whose evasion they exist. In particular, to make certain forms of mental illness more socially acceptable by encouraging the belief that they are in fact some other kind of illness is only to add to the misunderstandings, misconceptions, and confusions still surrounding the topic of mental illness today and to maintain—if not increase—the fear, shame, disapproval, and avoidance still aimed at a more curtailed category of mental illness and at those regarded as mentally ill or formerly mentally ill by this narrower conception.

Second, the popular conception of a nervous breakdown can only be maintained at the intellectual price of perpetuating a philosophical style of thought that has, to stress the practical, probably done as much as any other single factor to slow the accumulation of certain and useful knowledge in the field of psychiatry, or, to be more philosophical, contributed potently to our failure yet to resolve the many problems of man and his nature. The idea that a nervous breakdown is a physical illness (however comforting it may be) depends upon mind-body dualism and could not exist without it. The fact is, however, that man is a

psychosomatic animal: every action, every reaction, every thought or deed, every illness involves psyche *and* soma in the most complexly interacting and interpenetrating ways. To reduce this complexity to the kind of "either-or" thinking inherent in mind-body dualism is only to assure that none of the problems of man, including mental illness, will ever be adequately understood.

Finally, and most practically, maintenance of the beliefs inherent in popular ideas of what a nervous breakdown is, ensures inadequate treatment of emotional disorders, especially of those labeled nervous breakdowns. To laymen, treatment often seems to require nothing more than rest; it may be added that the rest cure is sometimes thought to be best undertaken under the supervision of a general practitioner and combined with medication, tonics, and the like, but almost never appears to require psychiatric intervention. Much more generally, however, because nervous breakdown is wholly identified with an acute phase in an illness, the person who comes out of the acute phase and picks up his former life where he abandoned it may be regarded as well and left free of stigma, but he is also left free to suffer all the less dramatic consequences of the underlying personality disorder involved in the previous breakdown and free, perhaps, to break down again!

THE NERVOUS SYSTEM AND BEHAVIOR

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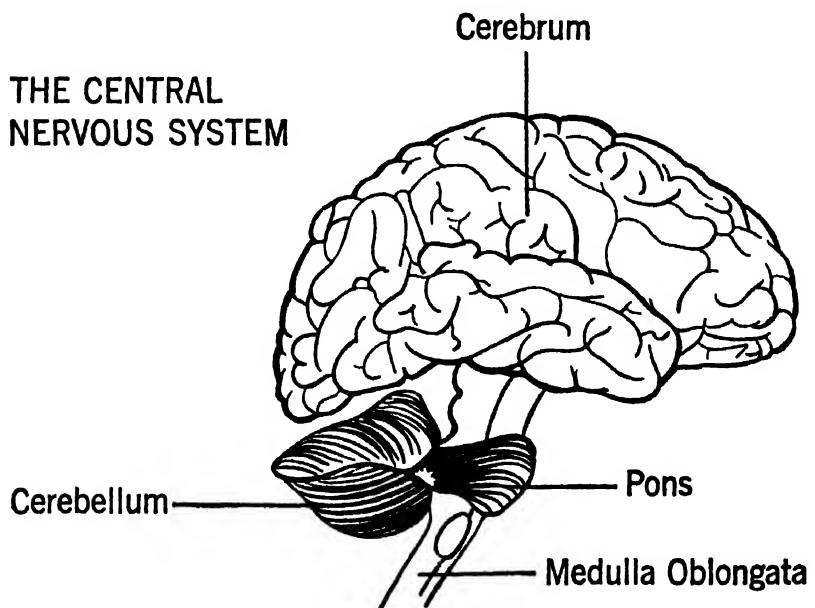
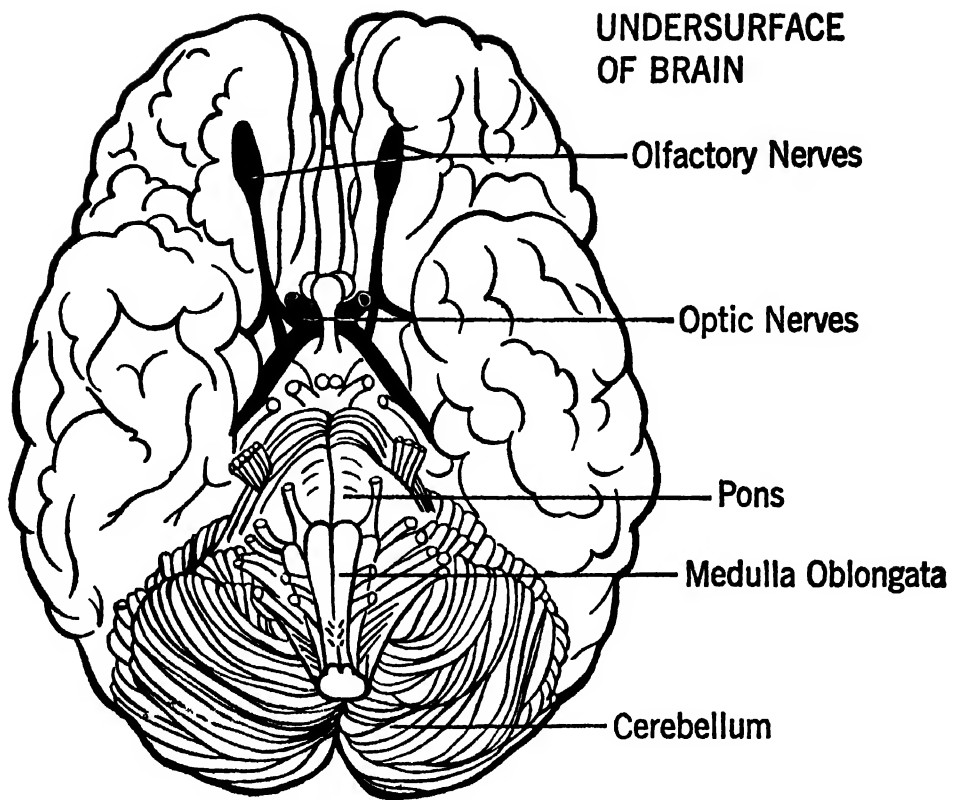
Until a little over three centuries ago, the soft material in the skull that we call the brain was regarded as merely a store of mucous awaiting its time to flow into the nasal cavities and thus cleanse them. Man's behavior was thought to be controlled by spirits or demons acting upon or inhabiting his body. The folklore of our language still attributes kindness to the heart, anger to the liver, and hysteria to the uterus. Even a twentieth century figure, such as Adolf Hitler, could still say, "We think with our blood," and a distinguished psychiatrist could say, within the last two decades, that the psyche is somehow suffused through the whole soma or body. Yet the evidence that mind and behavior are directly related to the activity of the nervous system is unequivocal.

The ancients had learned, probably largely from the injuries of war and from the wounds of animals caught in the hunt, that if the nerves connecting any part of the body with the spinal cord or brain were cut, that particular body region became paralyzed and anesthetic. They knew, further, that damage to one or another part of the central nervous system could produce quite specific defects in behavior.

Early in the nineteenth century the idea that different aspects of behavior depended on different parts of the nervous system—that various functions were localized in particular structures—was formally put forth under the term, *phrenology*. Unfortunately, this notion was soon exploited by charlatans, and many spurious localizations of functions were asserted, but the basic notion was correct and is now abundantly proven. Indeed, it is now possible not merely to relate mind and behavior in general to the whole nervous system, but also, in considerable and growing detail, to relate particular attributes of mind and behavior to specific regions or activities of the nervous system.

Let us examine this.

The central nervous system (in contrast to the peripheral nerves,



that connect it to the other parts of the body, and the so-called vegetative or autonomic nervous system, an interlacing net of strands of nerve fibers and knots of nerve cells distributed along blood vessels and in the viscera) is located in the bony cavity of the skull and spinal column. The long, finger-sized spinal cord expands at its upper end into an oblong-shaped medulla, an irregularly bumpy midbrain, and a further expanded thalamus, and then swells into the two great cerebral hemispheres and the lesser cerebellum.

Both the cerebrum and the cerebellum possess a gray outer layer (cortex) composed mostly of "naked" nerve cells or neurons (naked in that a white fatty myelin layer is missing from them), deeper layers of white matter (the myelinated nerve fibers running to and from the outer cells), and deeper masses of gray matter, including the so-called basal nuclei. The positions of clumps of neurons (nuclei) are quite definitive and repeated from one normal brain to another. This makes it possible to produce small circumscribed lesions (regions of damage) by electric currents, supersonic sound waves, focused X rays or alpha rays, and the like, or by actual excision. Many of these same agents, especially electric currents, in lower intensity can excite or activate the neurons of a region during the period of application and without any permanent damage. Both excitation and depression of neural activity can be easily obtained with drugs and chemicals of various sorts, although with these agents it is rarely possible—except by local application—to be quite certain of the site of action. It is thus possible, by applying various chemical or physical agents, to decrease or increase the activity of the nervous system, as a whole or in highly specific regions.

Fortunately, still another tool is available to the neurophysiologist. When any nerve cell or its attached fiber becomes active and sends a message or impulse, there is a feeble and brief but clearly measurable flick of electric change accompanying the activity. A nerve message travels along a good-sized myelinated nerve fiber at something like one hundred meters a second, and accompanying this action is the action current or action spike, a negative shift of less than a tenth of a volt and lasting about one-thousandth of a second. Lesser and more prolonged changes in potential occur at nerve cells as they move toward or away from a state of increased excitation, and these can also be directly measured. Further, increased chemical exchange (metabolic changes) occurs in neural structures when they are active, local blood vessels dilate to bring more food and oxygen to active regions, and

there are still other ways to follow active messages to and fro within the nervous system and to identify regions that are more or less active. It is possible, therefore, not only to alter the state of activity by local manipulation of the nervous system, but also to follow the physiological changes in activity accompanying the everyday events of living. These are the tools for demonstrating the relation between the nervous system and behavior.

In man, the brain constitutes only 2 per cent of the body weight, yet it consumes 20 to 25 per cent of the oxygen that we breathe at rest. This oxygen is used to burn foodstuffs, ultimately sugar, and to produce the energy for maintaining function. If the sugar in the blood is lowered, as by an overdose of insulin, or if the oxygen carried by the blood is seriously lowered, as on breathing nitrogen or rarefied air at high altitudes, the large energy demands of the brain are no longer satisfied and function is disturbed.

There is a gradient of metabolic activity along the neuraxis, from the most intense in the gray cortex and some basal nuclei, to the least intense in the brain stem and spinal cord; and as the energy supply is lowered, these parts of the nervous system drop out of function successively. Ten seconds of oxygen deprivation is sufficient to knock out the cortex and cause the blackout of aviators making a sharp turn against gravity or to produce the fainting that accompanies a brief stoppage of the heart. Longer or more severe deprivation produces disturbances in perception or motor coordination or reflexes or, finally, in the basic control of breathing and circulation. A more subtle depression of brain function can be induced by the anesthetic drugs, which likewise are able to induce first unconsciousness and ultimately paralysis of respiration and other vital functions.

The converse of coma and unconsciousness is mania and convulsive activity. These, too, can be produced by a variety of drugs, such as Metrazol or strychnine, or by massive electrical currents or repeated shocks passed through the brain. When such overactivity of the brain is induced, there is an increased use of oxygen and sugar, an increased change in phosphate and nitrogen compounds, and many other chemical and electrical evidences of this increased action, along with the conscious and behavioral manifestations of it. Even without going to the extremes of producing unconsciousness or convulsions, the actions of depressing or exciting drugs can be followed by the changes in electrical activity picked up from various regions of the nervous system. Manipulating the brain, or even introducing into it tiny wire electrodes

to measure its activity, can ordinarily be done only on animals, yet there are occasions, when it is necessary to guide a surgeon's scalpel or to confirm a diagnosis, for limited stimulation or electrical recording to be done on the human brain. With similar manipulations, similar phenomena are seen with humans, monkeys, cats, and even much more primitive animals, so that findings, at least of a general sort, can be freely carried over from one species to another.

When light is flashed in the eye, nerve messages can be followed by their electrical manifestations, along the optic nerve, through the midbrain and thalamus to the occipital (back) portion of the cerebral cortex. Messages from different parts of the retina go to different, definite regions of the brain. When these brain regions are directly stimulated, visual hallucinations are produced, all the way from simple light flashes to the enacting of complicated scenes. In similar ways, the messages carrying hearing from the ear or touch from the skin have been traced into and about the nervous system. Indeed, it has been possible, by inserting microelectrodes into individual neurons, to find which particular nerve cells are active in connection with which precise sensory experience, even to particular visual patterns. Similarly, certain parts of the brain (the motor areas), when stimulated, lead to particular coordinated movements, and again the messages can be traced all the way from cortex to muscle.

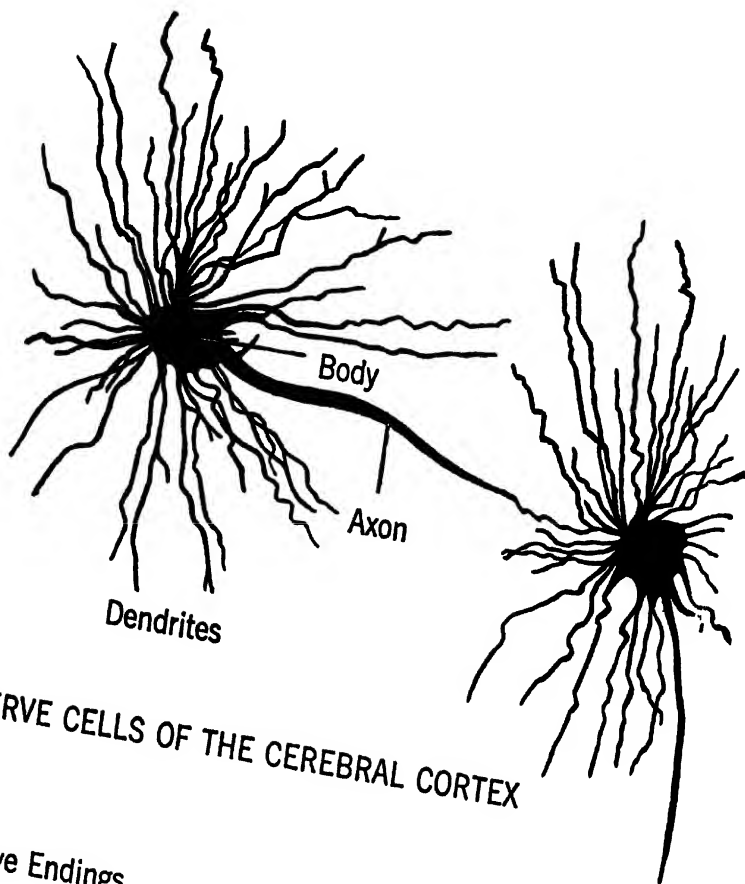
Even the process of learning can now be traced electrically. At the earlier stages of distinguishing, for example, between a signal at six flashes a second and one at ten a second—the former being a positive and the latter a negative signal—electrical activity at one or another of these frequencies appears throughout most of the brain. Later, when the discrimination has been well learned, electrical activity appears only briefly and in highly localized regions in response to a stimulus; but if the animal in the experiment becomes confused and makes an error, the electrical activity flares up again through much of the brain and the wrong frequencies become mixed with the proper ones. Not only can learning be followed, but memories, within limits, can be located. Stimulation of a small region in the temporal lobe can induce in man the unfolding of some past experience, as if watched on television; stimulation of a nearby region is like changing the television channel.

Even moods, feelings, and drives can be related to particular brain regions and activities, and their abnormal states can be modified by brain manipulation. Nuclei in the upper brain stem (hypothalamus)

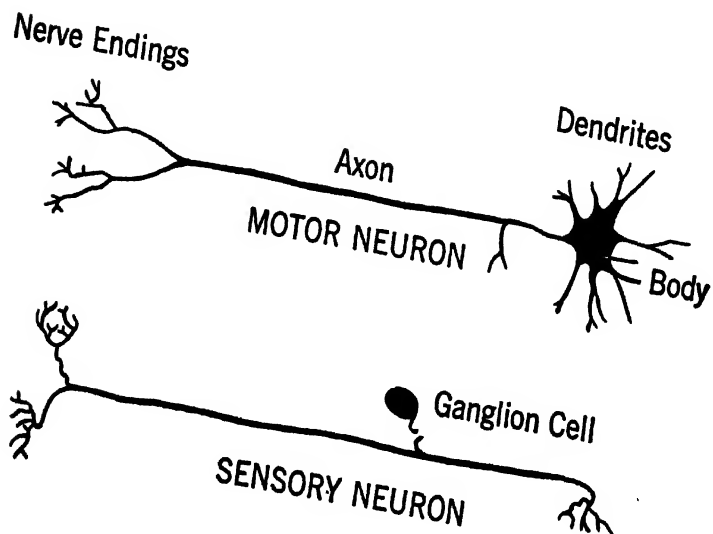
control appetite and thirst, anger and fear; and still other centers are concerned with mating and infant care, with pleasure, pain, and anxiety, and with the color of emotional experience. Stimulation of a thirst center will cause an animal to drink, even to death from an overfilled stomach. Destruction of a hunger center will cause an animal to starve in the presence of food. Animals will press a lever at a high rate of speed for days, if each press produces a brief electrical stimulation of a "pleasure" center. Destruction of appropriate brain regions will render a wildcat tame, and destruction of other regions will render a tame cat wild. Schizophrenic patients have been found to show vigorous electrical activity in certain deep nuclei during the presence of hallucinations. A tranquilizer, which relieves the hallucinations, also abolishes the electrical spikes. Stimulation of these same nuclei, sufficient to initiate spikes, will also initiate hallucinations; again a tranquilizer can abolish both. Clearly, in general and in particular, brain and behavior are intimately related.

Not only does the functioning of the nervous system depend on its structure, but organization or structure is the core of the rich behavior of which the nervous system is capable. Probably nothing else in the world approaches the human brain in regard to intricacy in number of interconnections. The fourteen hundred grams of brain contain well over ten billion neurons, over half in the cerebral cortex, and several times this many supporting (glia) cells. These latter are closely associated with neurons, often forming a sort of covering layer, and they have an intense chemical activity. Whether the various kinds of glia serve in some way to nourish the neurons, to help channel the minute electric currents that flow into and out of neurons, to send messages themselves, or to serve the needs of the brain in still other ways, is not yet established. The neurons, whatever else they do, do send and receive messages, and their structure is clearly adapted to this activity.

Each neuron has a concentrated mass of protoplasm, as has any other cell body, with a large nucleus and many other fairly characteristic subcellular structures. But, uniquely, from this mass extend fine filaments or fibers, which may terminate tens of centimeters distant from the parent cell body. The dendrites, relatively short and widely branching fibers, bring messages to the cell body, while the axon, a single elongated process, carries messages on from the cell body. Axons from thousands of neurons may make connection with the dendrites and cell body of a single neuron, whose axon in turn makes further contacts with other neurons "downstream." An axon, although rarely as



NERVE CELLS OF THE CEREBRAL CORTEX



large as 15 micra in diameter, may yet contain practically all the cytoplasm of the entire neuron because of its great length. Moreover, it contains many longitudinal tubules, almost submicroscopic in size, and the whole cylinder seems to move outward from the cell body at, perhaps, 3 millimeters a day—undoubtedly related to the ability of a cut nerve to regenerate its peripheral portion.

The message traveling along a nerve fiber, having once been set up by a stimulus of some sort, is thereafter dependent only on the fiber in which it travels—the so-called all or nothing law. This is like a spark traveling in a fuse: whether the spark is strong or feeble, whether traveling rapidly or slowly, does not depend on the size of the flame that started it but on the properties of the fuse in which it is traveling—thin or fat, dry or damp, more or less combustible. And just as a lighted portion of the fuse serves to ignite the next region of the fuse, so an active portion of the nerve fiber serves to activate the next portion of the fiber. The process in the nerve, again like the fuse, involves some local physicochemical change, which produces an effect that starts the same physicochemical change in a nearby region. In the case of the fuse, the burning produces heat, which starts new burning; in the case of the nerve, minute electric currents are set up between active and inactive regions, much as one short-circuited battery can lead to the short-circuiting of others connected with it. It is these action currents that can be picked up by electrodes, and serve as signals to an experimenter that nerve messages are passing. The amount of energy involved in sending a nerve message is extraordinarily small, so that the high metabolism of the nervous system is directed more toward maintaining the machinery than toward using it—at least as far as nerve impulses in nerve fibers are concerned.

A nerve impulse traveling in a single neuron would be meaningless if it simply died at the axon terminations. Normally, axon endings of one neuron will meet dendrites of others, and the nerve messages are able to cross the junctions between them (the synapses), so that the contained information is passed on from neuron to neuron. Transmission across a synapse is more complicated and far more variable than is conduction along the nerve fiber, and chemical carriers or transmitters probably play a greater role in carrying the message across the junction.

The synapse is, indeed, the crucial organizational element of the nervous system. Thousands of messages focusing on a single neuron are distributed in particular spatial patterns among the mosaic of

synapses, and are distributed in particular temporal patterns as trains of nerve impulses arrive in different chronological orders and at varied frequencies (in any one fiber varying from less than one to more than a hundred per second) at a particular synapse. With all this mass of incoming information, the receiving neuron can respond only by increasing or decreasing its own discharges. The synapse is a sort of decision point in the nervous system and introduces flexibility between the information flowing into a given neuron and that emerging from it.

Some, perhaps all, brain neurons carry on a sort of "mumbling" to themselves in the form of rhythmic electrical changes. Such spontaneous beats tend to involve large numbers of neighboring neurons, brought into step with each other at least in part by the electrical fields generated by the beating neurons. When large numbers are beating in synchrony, the potential oscillations can easily be recorded—the brain waves of man, which give much information to the physician regarding the normal or abnormal functioning of the brain. Nerve messages reaching such a beating mass tend to throw the individual neurons out of synchrony and to produce more individual and varied activity patterns. Thus, at rest, the occipital cortex, which receives visual messages, shows a fairly regular electrical beat at ten a second, the alpha rhythm; but when the person looks at something this rhythm is disrupted and the occipital cortex may appear to be silent. Microelectrodes, thrust among or even into individual neurons, reveal, however, that these occipital nerve cells have not become inactive but may be intensely busy receiving and discharging messages, but each at its own pace and in response to particular stimulation.

Since neurons are normally in some state of activity, nerve impulses reaching them, if excitatory, can increase the activity level and lead to more, and more frequent, discharges; or, if the incoming messages are inhibitory, the neuron can be caused to decrease the number and frequency of its discharges, or cease entirely. Whether a given message will tend to excite or inhibit a neuron depends on the properties of the particular synapse; but the extent to which it is able to induce the change depends on many other factors. The threshold of the neuron, which determines the ease with which it can be excited, varies during its own spontaneous activity cycle, with its distant past experience (how many and how recently messages have crossed the synapse), with the immediate activity or inactivity of the other thousands of synapses covering the neuron, and with the immediate past activity of a given

synapse (whether other messages have arrived within the preceding few hundredths or thousandths of a second). Clearly, here is a powerful device for producing an integrated response to variegated stimuli.

A given neuron in the brain can, indeed, be induced to discharge an impulse, or to change its discharge rate, by locally acting conditions. Chemicals or electric currents reaching it from nearby neurons could set off activity; still more, drugs or other chemicals reaching the neurons through the bloodstream, or electric currents applied through the scalp, can directly excite neurons, with resultant hallucinations or other experiences, or can directly depress them. These, however, are always extreme if not abnormal situations.

Normally, a brain neuron is excited by nerve messages reaching it through its synapses, and its messages help activate other neurons in the same way. Originally, of course, messages are set up in sense organs stimulated from the environment (external or internal), and move into the nervous system along sensory nerves and pathways; and eventually, also, messages from the central nervous system move along motor pathways and nerves to activate the muscles and glands and other effectors in the body that actually bring about behavior. But between the sensory input to the central nervous system and the motor output from it, the nerve messages travel along vast and intricate networks of neurons and their fibers. Each part of the nervous system is potentially connected with essentially all others—witness the fact that under strychnine poisoning a stimulus to practically any part of the body can produce violent convulsions of the entire musculature—and the lifework of thousands of scientists has gone into tracing the precise connections that exist and the actual traffic flow that moves along them.

The simplest pattern is the rigid reflex characteristic of the brain stem. The knee jerk, the small kick that the doctor produces by tapping the kneecap, requires only two neurons and a single synapse between them to complete the path from muscle tendon (for the doctor's tap stretches the tendon a bit) back to muscle belly (which contracts to give the kick). Other reflexes require more neurons and have richer connections, but even the flexion reflex, a pulling up of the foot when it is painfully stimulated, or the pupillary reflex, a narrowing of the pupil in response to light, or a vast number of others, involving every organ of the body under varied conditions, are handled by relatively short neuron chains and are rather automatic and repetitive.

As longer and longer neuron chains become involved, as messages

are relayed upward from the neuraxis into the brain, and from one part to another within the brain, before finally coming down again on their way to produce a response, the relation between stimulus and response becomes less and less immediate and the variability of behavior increases. Neuron chains can be linked together at their ends, so that a long loop is formed around which nerve messages may continue to reverberate for long periods of time. Smaller loops may form in which the returning limb has an inhibitory action on a synapse along the incoming link, giving a sort of automatic volume control or negative feedback, so that the messages that do get up to the brain are kept from becoming overly intense. At all levels, intricate patterns of converging fibers and impulses and of diverging fibers and impulses cause rich interactions and highly specific patterning. Thus, the same group of neurons may fire to one pattern of incoming messages and not to a different one, or, more important and more often, may give one pattern of discharge to a given input pattern and a different discharge pattern to another input pattern. Even richer relations are possible, in that a certain input pattern can lead now to one, now to another, output, depending on the present situation and the recent and distant history of the pool of neurons.

This brings us back to the starting point of this article. Every conscious state, be it an emotional feeling or an intelligent idea or a perceived experience or a planned action, just as every actual behavior, is associated with corresponding patterns of neuron activity and quiescence. These patterns are partly dependent on the actual anatomical connections laid down at birth or developed as part of early experience, and partly dependent on the physiological state of these potential connections, as determined by past experience and current conditions.

A few decades ago the neurophysiologist had little to offer the psychiatrist or psychologist by way of an explanation of consciousness, thinking, feeling, learning, in terms of how the brain works. Only the relatively simple and uninteresting aspects of behavior could be understood in terms of neurons and nerve impulses.

Today the situation is vastly different. Existing knowledge of the ebb and flow of activity in intricate neural channels, of the patterned movement of units of information along highly organized networks, of the minute transform properties whereby synapses turn incoming into outgoing signals, of the electrical and chemical events that modify the behavior of molecules and neuron masses, has given clear lines of

possible explanation for the most impressive and intricate properties of the human mind and behavior. There remain, to be sure, vast areas of ignorance and of uncertainty, but the major features of the intellectual terrain have been charted and the interdependence of physical and mental states is unequivocally established.

NEUROLOGY

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What is neurology?

Neurology, practiced as a recognized specialty by physicians, is both a science and an art. The medical science of neurology seeks understanding of the nervous system in health and in disease. The medical art of neurology applies such understanding to the care of patients.

What is the history of neurology?

Neurology is as old as recorded history. Primitive man drew pictures about blind men, paralyzed men, and men with "fits" or seizures. The ancient operation of "needling" or "couching" for cataract probably originated in India, and was described carefully in 1000 B.C. Both "palsy"—perhaps Parkinson's disease—and possession by evil spirits—apparently epileptic seizures—are mentioned in the Bible. In the second century A.D., Claudius Galen, the Greek physician who later moved to Rome, described certain neurological disorders.

While Hippocrates gave its name to "glaucoma," an eye ailment that blinds when neglected, medical confusion of glaucoma and cataract continued until the eighteenth century.

Only in the nineteenth century did neurology start its great scientific strides. Advancing knowledge of anatomy and physiology provided the basis for the development of scientific methods for treatment of neurological disorders.

In 1950, the government, at the pleading of several voluntary agencies concerned with neurological ailments, established the National Institute of Neurological Diseases and Blindness. As one of the National Institutes of Health of the United States Public Health Service, this institute conducts research in neurological and sensory disorders at Bethesda, Maryland, and supports such research and training in neurology by grants to other medical centers, institutions, and individual scientists.

The twentieth century has been a period of rapid technological advances. They include new or better instrumentation, such as the electron microscope and the brain scanner for tumor detection; improved anticonvulsants; vaccines that have made several ailments preventable; and antibiotics that are controlling ailments which formerly were often fatal.

What comprises the nervous system?

The nervous system includes all the nerves, nerve centers, and nervous tissues. Broadly, in human beings, the nervous system consists of two parts: the central nervous system (C.N.S.) and the peripheral nervous system.

What does the central nervous system (C.N.S.) include?

The central nervous system consists of the brain and the spinal cord. Both have bony protections: the skull encloses the brain, and the spinal column (or vertebrae) surrounds the spinal cord. Such protections are valuable guards against injury and disease.

What is the peripheral nervous system?

The peripheral nervous system consists of all nerves which leave the bony skull or spinal column and travel to make connections with muscles, sensory organs, and internal organs. Peripheral nerves are a two-way system carrying messages from the outside world and the internal structures to the spinal cord and brain, and receiving directions for action from the brain and spinal cord.

The ordinary "nerve" is a white bundle containing many individual fibers, each one carrying an independent message.

What is unique about the nervous system?

The nervous system differs from other organs of the body because of the complexity of its organization, and because so many different functions are involved in its activity. The brain is actually an aggregation of billions of individual units called "neurons" or nerve cells.

What functions are regulated by the nervous system?

Among the many functions regulated by the nervous system are the interpretation of sensations of the skin, and the special senses of vision, taste, hearing, and smell; the control of voluntary movement, involving

recognition of posture and spatial orientation and the initiation and regulation of muscular activity; and the control and regulation of a number of essential unconscious or "vegetative" activities, such as temperature, blood pressure and circulation, digestion, and the release of hormones. Finally, the complex integrative function of the nervous system underlies the intellectual activities including sleep and waking, consciousness, memory, thought, intelligence, and emotion.

What is a basic goal of neurology?

It is a primary objective of neurology to understand the anatomical basis on which these varied activities of the nervous system depend, and to discover the electrical, physical, and chemical changes which accompany alterations in them. This knowledge can lead ultimately to the prevention and cure of neurological diseases.

Why does the nervous system pose medical problems?

Like other organs of the body, the nervous system may be affected by disease. It is subject to infection, inflammation, and irritation. It may be damaged by physical injury or by toxic agents. Its function may be deranged by inherited disease, by senility, or by alterations of blood supply. It may harbor tumor growth either as a source of origin of tumor, or through spreading to the nervous system from other parts of the body.

What are some signs of neurological disease?

In most instances, the existence of neurological disease is evidenced by some disorder of sensation or of movement. Not infrequently, however, the primary manifestation of neurological disease may be a disturbance of consciousness or intellect.

How are neurological and psychiatric ailments distinguished?

For reasons just named, it is difficult at times to draw a sharp distinction between a "neurological" disorder on the one hand, and a "psychiatric" or "mental" disorder on the other, especially since in the final analysis each probably depends upon some disturbance in the functioning of the nervous system. The term "neurological disorder" is generally applied when the patient's symptoms are referable to some demonstrable disease of the nervous system, and especially when sensory or motor disturbances are present. The term "mental disorder" usually

implies that no demonstrable physical alteration of the nervous system exists, and refers especially to patients showing, predominantly, disturbances of emotional reaction or intellectual activity. "Nervousness" would be included in this latter category.

What are the more important neurological disorders?

Cerebral palsy is a term referring to a group of ailments with chronic lack of muscular control of many types, due to damaged control centers of the brain. Body muscular movement is abnormal, slightly or severely, and is often complicated by speech, sight, and hearing defects, and sometimes, by retardation.

Mental retardation is a symptom of physical or environmental damage which has resulted in arrested mental development. Mental retardation is considered neurological when it comes from organic causes, such as phenylketonuria (an inborn defect of metabolism); mongolism; and kernicterus (severe jaundice of the newborn).

Cerebrovascular diseases, especially *stroke*, involve brain damage due to some failure or abnormality of the blood vessels. In stroke, a clot within the blood vessel (or a break in its wall) often causes rapid paralysis of one side of the body.

Epilepsy is a group of disorders characterized by recurring seizures or convulsions, or a brief loss of consciousness, or movements of which the patient is unaware.

Multiple sclerosis is a chronic but intermittent ailment affecting young adults with weakness and incoordination due to scars scattered in the brain or spinal cord or both. The cause of these scars, which replace the normal covering of the nerves, is unknown.

Headache is a pain in the head, often throbbing, pressing, or piercing. Headache is not a disease but a symptom for which some causes are unknown, others known.

Tumors grow in the brain as in other parts of the body and affect the nervous system in various ways. Certain types may be completely removed by surgery.

Among *neuromuscular* disorders, *muscular dystrophy* most often afflicts children, causing weakness in the muscles. In *myasthenia gravis*, the muscle-exciting system is disordered, causing weakness and easy fatigue. In *myositis*, the muscles themselves are inflamed.

Parkinson's disease, characteristic of the older years, is a brain-centered ailment often causing tremor and rigidity of the muscles.

How common are neurological and sensory disorders?

While such neurological problems as headache, the need for glasses after the middle years, and the decreasing acuteness of hearing in older years are almost universal, many neurological ailments fortunately are rare. With "stroke" contributing a large portion, neurological disorders are the third cause of death in the United States, and perhaps the leading cause of chronic disability.

What is a neurological examination?

The most important part of a neurological examination, many neurologists believe, consists in obtaining a good history from the patient, his family, and his family doctor. A simple point, such as occupation, may lead to diagnosis, as in lead poisoning of a painter.

A history typically includes present and past illnesses and social and family history. After a careful history, a physical examination follows.

The examining neurologist notes the state of consciousness, the mental attitude, the emotional state, and the speech of the patient. The senses of smell, touch, pain, and temperature are tested; the eyes are examined. The muscle tone and coordination, including movements of the tongue, face, arms, and legs, are evaluated. The familiar tapping to produce a knee jerk is one of several tests of reflexes.

What are the most frequently used special tests?

The tests most frequently used are: the electroencephalogram (E.E.G.), a graphic recording of the activity of the brain; the electromyogram (E.M.G.), a record of the muscle's own electricity; X ray of the skull; lumbar puncture (spinal tap); arteriogram (a roentgenogram of an artery); pneumogram (a record of respiratory movement); and myelogram (radiograph of the spinal cord). A research test for brain tumor employs the use of a "brain scanner."

Brain cells produce tiny electrical currents which can be greatly amplified and recorded on a moving paper to make an electroencephalogram (E.E.G.). Interpretation of this record of the electrical "brain waves" helps the neurologist determine whether unusual or abnormal patterns call for treatment or further medical investigation.

A similar record of the electrical currents generated within muscles is called an electromyogram (E.M.G.). An E.M.G. aids the neurologist in determining whether a muscle is "alive" and capable of contracting

provided that it receives the proper signal from a nerve, and in localizing the site of a ruptured spinal disc.

In performing a lumbar puncture or spinal tap, the physician inserts a needle between the vertebrae of the lower back. At this point a sample of the fluid that bathes the nervous system may be removed. The physician then can measure the pressure of the fluid and remove or tap a portion for diagnosis or treatment in various neurological ailments.

An arteriogram visualizes the arteries. This has increasing importance due to the discovery that perhaps one-third of the brain strokes in this country may arise from a block in a neck artery. The arteriogram is also used in perfecting brain surgery on certain abnormalities in arteries of the brain, which cause symptoms related to stroke or other neurological ailments.

Is a person with a "nervous disorder" usually "nervous"?

No. The word "nervous" unfortunately has several confusing meanings. When people talk about neurology, "nervous" means related to the nerve cells and does not mean "jumpy" or "fearful." To avoid confusion, the term "neurological disorders" is used. For the whole field of ailments of the nerves, spinal cord, brain, special senses, and muscles, the term is "neurological and sensory disorders."

Are social problems decreasing in neurological disorders?

Special education and rehabilitation facilities for the neurologically handicapped have expanded greatly. Already they have borne fruit for many persons—in jobs successfully held and in normal integration in community life. Unsolved problems of education, employment, and social adjustment challenge research interest and promote experiments in practical application.

The voluntary health organizations which became increasingly active after 1950 have helped to win popular understanding and support of research in neurological diseases. Government pamphlets also have furthered the popular understanding of this field.

Even with the most favorable social attitudes, the person who is deaf or blind must make a special effort to achieve adequate social integration. Persons with neurological handicaps of movement often require special equipment or special assistance for their sheer physical arrival at a social situation outside the home.

Who are the physicians specializing in the treatment of nervous and sensory disorders?

In the art of care for patients, neurologists are the medical specialists in ailments of the nerves and other tissues of the brain, spinal cord, peripheral nervous system, and muscles. Neurosurgeons specialize in the treatment of those cases requiring surgical intervention. Ophthalmologists are physicians who specialize in ailments of the eye and vision; otologists, of the ear and hearing; and otolaryngologists, of the ear and throat.

Are neurologists and neurosurgeons certified?

A physician who wishes to be certified as a neurologist by the American Board of Psychiatry and Neurology first must complete "five calendar years of training and experience, three years of which must be specialized training satisfactorily completed in approved training centers, plus two years of experience." After such experience he must take an examination in order to be certified.

Combined certification in neurology and psychiatry "requires a total of six calendar years of training and experience, after receiving the M.D. degree."

Board-certified neurologists increased from fifty-four in 1936 to more than 1300 in 1961.

The American Board of Neurological Surgery requires a neurosurgeon who wishes to be certified, to complete a year's surgical internship plus four years more of graduate study and training, or a comparable combination, before his examination. The list of examinations he has to pass hints at major interests: "general surgery, organic neurology, neuropathology, neuroanatomy, neurophysiology, and neuroradiology."

Also, the American Board of Pathology offers an examination for certification of those M.D. pathologists or neurologists who complete graduate study and experience in neuropathology.

What professional organizations hold particular interest for neurologists?

The two professional societies for neurologists are the American Academy of Neurology and the American Neurological Association. In addition, many neurologists are interested in the American Association of Neuropathologists; the American Psychological Association; the American Electroencephalographers Society; the American Academy

for Cerebral Palsy; the Association for Research in Nervous and Mental Diseases; and the World Federation of Neurology.

Neurosurgeons often belong to one or more of the following: American College of Surgeons; American Surgical Association; Harvey Cushing Society; Neurosurgical Society of America; and International College of Surgeons.

How does a patient reach a qualified neurologist?

Usually a patient with a neurological disease goes to a family physician who makes or starts the diagnosis. The family doctor may refer the patient, where advisable, to a neurologist or neurosurgeon for additional diagnosis and plan of approach to treatment.

Should the patient wish to verify the qualifications of a physician, the professional standing of any person offering treatment or diagnosis may be checked with the local or state medical society.

How are reputable voluntary health associations for neurological ailments located?

Public-spirited individuals band together in unofficial organizations to attack health problems. Such organizations are called voluntary health associations. In the neurological field they have performed valuable national and community services, supporting research and training, providing treatment, and promoting education on neurological ailments. A directory in a library may be consulted for specific information about an association. Information about a new association may be obtained from the local medical society or health department.

How are official sources of help for neurological patients found?

The local, county, or state health department offers information helpful to neurological patients. The federal government, particularly the Department of Health, Education, and Welfare, provides information and advisory services. Other branches of government are helpful in special situations, including the Veterans Administration, Department of Labor, Department of Defense, and Library of Congress. All federal agencies may be addressed at Washington 25, D.C.

Where can a layman find readable material about neurological disorders?

Recent years have seen a sharp increase in available information for the public about neurological and sensory disorders. Pamphlets may

be bought from the Government Printing Office, Washington 25, D.C., and from the Public Affairs Committee, 22 East 38th Street, New York 16, New York. Voluntary associations—both local and national—the United States Public Health Service, Washington, D.C., and some insurance companies offer many free pamphlets.

NEUROSES

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What are neuroses?

The question typifies some current misconceptions about the nature of psychiatric disorders, in that it embodies what Alfred North Whitehead has called the fallacy of concretizing a verbal abstraction, i.e., attempting to make of it a "thing." Rocks and livers are "things"; weathering and hepatitis are abstract terms connoting variably determined and manifested "processes." So also an illness, whether physical or psychiatric, is not a thing, but a highly complex set of interactions between an organism and its environment which produce discomfort to the organism—hence the term, "dis-ease." A "neurosis" then, apart from such personal discomforts, can be described, but not defined, as a category of conduct disorders in a person who is judged by a consensus of his colleagues to be behaving in ways that, although they do not completely disable him or alienate him from society, nevertheless impair his health, efficiency, and usefulness. What is called "neurotic" will thereby vary from age to age, from culture to culture, and from observer to observer. For such reasons, statistics as to the "incidence of neurosis" or other "mental diseases" at various past or current times, places, or circumstances—let alone projections into the future—are meaningful only with regard to the preconceptions of their proponents. As one example, many Soviet psychiatrists insist that they observed few or no combat neuroses in the Red Army during the last war—but what we would have called psychosomatic dysfunctions were dealt with as purely "organic" diseases, whereas reactions of anxiety, phobia, panic, or even psychosis were treated as evidences of cowardice or desertion justifying military punishment.

If neuroses are described so broadly, how do they differ from physical diseases, which also impair a person's health and efficiency?

Physical diseases, of course, have as their primary or immediate cause some traumatic (injurious), infectious, metabolic, or other dis-

turbance of body function, whereas no such causative factors, despite intensive research, have been found as the sole cause of neurotic reactions. However, the two are interrelated, since (a) physical disease is more likely to occur in a person rendered susceptible by prolonged neurotic maladaptations; (b) some forms of neuroses are directly expressed in altered bodily functions such as chronic high blood pressure or gastric or colonic ulcers; and (c) physical disease itself may be one among many sources of realistic concern which is then neurotically elaborated into excessive anxieties, persistent phobias and compulsions, unnecessary dependencies, and other cycles of psychologic tension and physical illness.

Are neuroses mild forms of insanity?

"Insanity" is a legal term which, in accordance with the M'Naghten precedent signifies that a person is, by reason of "mental infirmity," so out of touch with physical and social realities that he "does not know the nature of his acts" and cannot "distinguish right from wrong." Obviously these criteria would vary widely in place and time: homosexuality and fairly frequent drunkenness were considered not only normal but commendable in classic Greece or imperial Rome, and paranoid persecutions and mass murders for political or religious reasons have at times been similarly approved by a consensus of locally influential observers even in our own era. In general, however, "insane" patients are classified in psychiatric terminology as psychotic only if they (a) are confused or disoriented as to person, time, or place; (b) fantasy a private world of their own in delusions (false beliefs) or hallucinations (vividly imagined and accepted experiences); (c) show excessively intense or persistent emotional reactions, e.g., inconsolable melancholy (depression), unjustified and uncontrolled rage, extreme fear (panic), or periods of shallow hilarity and frenzied activity (mania); (d) refuse or distort normal interpersonal relationships of dependence, companionship, or love (schizoid deviation or isolation); and/or (e) suffer from actual brain defects which seriously impair their capacities to perceive, understand, or manage their environment (toxic or organic psychoses). True, it may be argued that the neurotic, too, fulfills these criteria to some extent (including even those in the last category if he takes alcohol or other drugs in amounts large enough to poison his central nervous system); but again it is a question of degree rather than kind. Indeed, if a neurotic patient becomes increasingly unrealistic,

emotionally disturbed, or so inadequate and deviant in his behavior as to cause himself and his associates serious and persistent troubles, his diagnosis may well be changed to some transitional term such as "hypomania" (mild mania) or "pseudoneurotic schizophrenia," and he may be committed as legally insane.

Is there an endless number of transitions from neuroses to psychoses?

There are really no universally accepted definitions of these supposedly differential terms other than the symptomatic ones implied above, so that those who make absolute distinctions simply do so arbitrarily by semantic fiat. As to causation, Emil Kraepelin, the principal author of our present system of psychiatric classification, predicted that both neuroses and psychoses would eventually be traced to metabolic or hormonal disturbances; whereas H. Osmond, R. G. Heath, H. Hoagland, R. Altschul, and others believe they are finding such chemical deviations only in the psychoses. Conversely, some analysts (e.g., Paul Federn, John Spiegel, M. A. Sechehaye) and some social anthropologists (e.g., Gregory Bateson, Marvin Opler) tend to attribute both neurotic and psychotic behavior to early familial experiences; others (F. Kallmann, Sandor Rado, Roy R. Grinker) add a genetic or constitutional factor to the psychoses. If, then, the "diagnosis" is limited to one or two words, the same patient may be variously labeled as having "adult maladjustment," or "character disorder," or as being "neurotic," "sociopathic," or even a "borderline psychotic" by psychiatrists with different clinical criteria and therapeutic objectives. In fact, the prejudicial nature of all such designations is reflected in a half-jocular remark by Sigmund Freud to the effect that in paranoia the supposedly psychotic patient sees clearly man's universal hatred for man and is in that sense sane, whereas the rest of us who try to deny this are simply deluded. (See *Paranoia*)

How do neuroses and psychoses differ from criminality?

Criminality implies a deliberate, reasoned, responsible act of illegal injury or illegal possession for direct personal advantage or material gain, often involving conscious collusion with fellow conspirators equally aware of the nature and possible consequences of their joint project. All these characteristics supposedly serve to distinguish criminal from both neurotic and psychotic behavior and, in a legal sense, eliminate one in favor of the other. And yet, there is a tendency in some

juristic thinking to attribute a growing sector of criminality to the same constitutional or environmental predispositions that supposedly cause neuroses and psychoses, and to send such criminals to psychiatric rather than penal institutions. (See *Durham Decision*)

How did these various concepts of neurosis develop?

In this less than perfect universe men have always had various difficulties in adaptation, have recognized similar periods of distress in their fellowmen, and have evolved various modes of alleviating their tribulations. The ancient Sumerians built temples in which their priests (medicine men) provided the perplexed and ill with appropriate physical, social, and religious "cures" (*curare*, to care for). Saul, when enraged or melancholy, was given music therapy by David, who later feigned insanity (the modern Ganser syndrome) to escape Philistine captivity. Nebuchadnezzar was protected and treated when, in his frenzies of frustrated ambition, he ate grass, barked like a wolf, and wandered over his royal estates moaning in agony that he had not found "the Way to the All." Early explanations of such behavior were mystical, i.e., possession by animals (as in Nebuchadnezzar's lycanthropy) or the vengeance of the gods (our term "epileptic seizure" still connotes "a stroke from above"). In Greek times such superstitions were discarded for the "science" of the day: Hippocrates derided the notion that epilepsy was a "holy disease," but Plato, in his *Timaeus*, somberly expounded the cause of "hysteria"—a name still used for various forms of neurotic behavior—as follows:

"In man the organ of generation—becoming rebellious and masterful, like an animal disobedient to reason, and maddened with the sting of lust—seeks to gain absolute sway; and the same is the case with the womb of woman; the animal within them is desirous of procreating children, and when remaining unfruitful long against its proper time, becomes discontented and angry, and wandering in every direction through the body, closes up the passages of the breath, and by obstructing respiration (*globus hystericus*) drives them to extremity, causing all varieties of disease."

Interpreted figuratively, this passage antedated by nearly 2,400 years Freud's preoccupations with the relationships between repressed erotic desires and neurotic behavior. However, so great was the prestige of Plato, Aristotle, and their medical interpreter Galen (second century), that even in the nineteenth century the great French neuropsychiatrist,

Jean Charcot, found it difficult to believe that male patients could become "hysterical." (See *Hysteria*)

In the interim, however, concepts and terms in the field had become too confused and involved for more than a brief sampling here. Plato, in a flash of good sense embodied in the *Republic*, had attributed all deviations of behavior either to imbecility (mental deficiency) or to madness "incident to the excessive pursuit of pleasure on the part of ill-bred persons." Hippocrates likewise anticipated recent "psychosomatic" speculations in his doctrine that people were melancholic, choleric, phlegmatic, or sanguine, depending on a corresponding excess of one of the four humors: black bile, yellow bile, phlegm, or blood. Aretaeus, six centuries later, described manic-depressive cycles and other psychiatric aberrations familiar today. In contrast, during the Middle Ages, severe neurotics or psychotics were ostracized as wizards or witches under the influence of the Devil, were examined according to an ecclesiastic ritual written into a book called *Malleus Maleficarum* by two monks, and if found "guilty of this nefarious compact," were tortured, drowned, or burned. The term "neurosis" itself, however, was not coined until the eighteenth century when William Cullen (1710–1790) used it to denote the symptoms of organic brain disease. This usage was then reversed by Ernst von Feuchtersleben in 1845, when he called the organic disease itself the *neurosis*, and its manifestations, a *psychosis*. Freud, three generations later, added to the semantic confusion when he reinterpreted schizophrenia—the most common psychosis—as an "inaccessible" form of "narcissistic neuroses" and then divided the treatable "psychoneuroses" into "actual neuroses" (due to temporary sexual depletion), and the "transference neuroses" (which were expressions of unconsciously determined interpersonal relationships). Some order was brought out of this chaos to serve the practical needs of military psychiatry when, in 1945, the Army Surgeon General's "Technical Bulletin No. 203," classified the behavior disorders as follows:

- 1) *transient personality reactions* to acute or special stress;
- 2) *the psychoneuroses*, including excessive anxiety and the phobic, compulsive, hysteric, psychosomatic, or moderate "dissociative" reactions to be discussed below;
- 3) *character disorders*, comprising "emotional immaturity," "psychopathy," and various concomitant patterns such as alcoholism, drug addiction, or sex deviation. Mild but chronic "psychogenic" dysfunctions

such as stuttering, tics, or other disturbing mannerisms of behavior were also included here;

4) *defects of intelligence*; and finally,

5) *psychoses*, subdivided into manic-depressive, schizophrenic, paranoid, toxic-organic, and other severe and persistent deviations of behavior. (See *Psychoses*)

This classification, too, soon presented difficulties; for example, what was to be done with "neurotic" anxieties or phobias that were so severe as to be chronically disabling, as contrasted with "three-day schizophrenias," complete with confusions, hallucinations, and destructive excitements that cleared when battle stress and acute exhaustion were relieved?

In view of such considerations, the original pentagonal classification was extended to recognize and include all possible combinations and transitional forms and to emphasize the nature and treatability of symptoms rather than rigid diagnosis and prognosis. With these connotations, the system has been embodied and elaborated in the official "Standard Nomenclature of Mental Disorders" in current usage.

Where do the seemingly anomalous terms "neurotic character" and "psychopathic personality" belong in the more fluid and interpenetrating classification of mental disorders?

A neurotic character is a person who, though neither psychotic (socially disabled or dangerous) nor acutely neurotic (markedly handicapped by severe anxiety, unnecessary fears or phobias, compulsions, or "psychogenic" physical symptoms), is nevertheless excessively and demandingly dependent ("immature"), overly compliant yet preemptive (passive-aggressive), escapist, "martyred," or otherwise socially maladjusted to a degree that seriously and continually impedes his creativity and social usefulness. The adjective *psychopathic*, because of frequent confusion with *psychotic*, has been replaced by *sociopathic* to designate a person who, though he may have high intelligence and retains seemingly normal contacts with external realities, is nevertheless so asocial or antisocial in his concepts and attitudes that he fails repeatedly, and often dramatically, in his educational, economic, marital, occupational, and other adjustments. Whether or not these failures are complicated by alcoholism, addiction to drugs, sexual deviations, etc., he sooner or later exhausts the resources and tolerance of his family, friends, and associates and eventually becomes a social pariah. Such individuals constitute an almost insoluble social problem: because

they themselves obtain unconscious but deep satisfaction from their behavior, they rarely seek and initially almost never cooperate in, the usual forms of psychiatric therapy. Since they may for a remarkable time maintain a cultured or even perversely charming facade and are not overtly psychotic, they cannot be forcibly hospitalized, and inasmuch as they do not deliberately plan socially destructive acts by which to secure material gain, they are generally immune to criminal prosecution. Yet families, friends, social agencies, and courts, often in desperation, refer such patients to psychiatrists for the treatment of their "neuroses" and are disappointed or incredulous when a poor prognosis is given.

What are the leading current theories as to the causes of various types of neuroses?

Some explanations dating from ancient, classical, and medieval times have already been mentioned; indeed, it is justifiable to wonder if a century from now our current ones will seem any more reasonable or valid. However, modern theories fall into the following categories:

1) PHYSICAL

(a) *Genetic*: such as Pierre Janet's concepts of "constitutional inferiority."

(b) *Neurologic*: as in W. Alvarez' dubious postulate of "storms in the hypothalamus," a small region at the base of the brain that was once supposed to be the "center for emotions."

(c) *Chemical*: used by H. Fabing, H. Himwich and others as a rationale for prescribing "tranquilizers," "energizers," and other drugs.

2) PSYCHOGENIC

(a) *Freudian*: Freud began by attributing all neuroses to sexual repression, but gradually included other and earlier conflicts, such as the frustration of "oral" dependent and nutritive needs or the lack of appropriate outlets for "innate aggression." One questionable development of the last notion was that a universal "death instinct" (Thanatos), when not expressed in sadism, could "turn inward" and cause neurotic or "masochistic" suffering (K. Menninger, R. Sterba). Later disciples of the Freudian school (K. Abraham, Melanie Klein, W. R. Fairbairn) traced the neurotic's present by symbolic equations with his even earlier past, i.e., the first six weeks of life. However, most modern analysts, as Anna Freud first emphasized, are concerned less with the multiple sources of anxiety than with the defense mechanisms of the ego by which a person tries to alleviate his inner fears and tensions. These adaptive maneuvers may range from the normal, as in direct suppres-

sion, or in sublimation (displacement into socially approved activities), through the neurotic modalities of phobias, obsessions, and compulsions, to actual psychoses with denial of reality, uncontrolled fantasies, and bizarre behavior. Current psychoanalytic theorists (E. Kris, R. Loewenstein) are preoccupied with how the adaptive or maladaptive part of the personality (the "autonomous ego") develops and operates, and under their leadership Freudian metapsychology may return to more varied and inclusive concepts of human behavior.

(b) *Jungian*: "analytic psychologists" are inclined to emphasize constitutional differences (introverted vs. extroverted) and to postulate an "atavistic unconscious" which traces neurotic symbols and symptoms to the prehistoric heritage ("the racial unconscious") of man.

(c) *Adlerian*: "individual psychologists" stress those aspects of neurotic behavior which constitute a "masculine protest," i.e., a bid for power and influence to compensate for a nagging "inferiority complex."

(d) *Karen Horney*: this school views a neurosis as a failure to achieve "self-realization."

(e) *Harry Stack Sullivan*: disciples of Sullivan can discern neuroses only as deviant interpersonal relationships.

3) SOCIOLOGIC

The formulations last mentioned serve as a bridge to concepts that attribute neuroses to difficulties of adaptation among immigrant or minority groups (T. A. C. Rennie), or other ethnic and economic stresses (C. Faris and H. W. Dunham).

4) GENERAL PHILOSOPHIC

Sören Kierkegaard protested that life was but a period of "primal anxiety" between faint hope and certain doom, and Henry Thoreau, too, called it a "quiet desperation." "Existentialists" from Martin Heidegger to Medard Boss speak impenetrably about the neurotic "lack of a sense of being-in-the-world," and current theologians (Paul Tillich, Martin Buber), about failures of an adequate "encounter" between "I, Thou, and God." Perhaps no less mystically but more understandably, the author has attributed man's anxieties to the inadequacies of his ultimate "Ur-delusions": first, that he is or can become physically invulnerable and immortal; second, that he can rely on his friends; and finally, that he is a creature of cosmic consequence. These aspirations give rise respectively to man's technologies, his social compacts, and his philosophies or religions. When these fail him, he experiences anxiety and develops physical, social, and conceptual aberrations which we call neuroses and psychoses.

Is there experimental or other scientific evidence as to the causes and treatment of the neuroses?

The theories cited are based on many clinical and cultural observations and are therefore not purely "speculative"—although the content of man's speculations also reveals much about his nature; so also meaningful psychiatric theories are mutually complementary rather than contradictory. However, they have received scientific support from a number of sources, including animal experimental evidence. For example, investigations by Ivan Pavlov, H. S. Liddell, W. Horsley Gantt, and the author have shown that when animals are subjected to conflicts of motivation or other adaptational stresses, they develop external and physiologic manifestations of anxiety and various progressively maladaptive behavior patterns analogous to those in human neuroses. These consist of inhibitions, phobias, compulsions, psychosomatic dysfunctions, motor disturbances, sexual aberrations, social maladjustments, and even hallucinations and delusions. Further experiments in our laboratory have also shown that the "experimental neuroses" thus produced responded favorably to familiar methods of therapy.

Are there objective studies in humans in addition to the experimental analogies mentioned above?

1) *Child development:* Long-term studies have demonstrated that if any young organism, including the human child, is deprived of tender, manipulative "maternal" contacts, it may develop neurotic or even psychotic behavior aberrations in later life. In general, these may be alleviated by a secure environment and individualized therapy, but J. Bowlby, A. Bourne, and others have shown that if the deprivations have been severe and continuous up to the age of four—as may happen to neglected children in some orphanages or foster homes—the effects on the child, future adolescent, and adult may be serious and irreversible.

2) *Cultural studies:* J. Gillin, E. D. Wittkower, and others have compared various human societies, and have inferred that neuroses and psychoses have always and everywhere been related to intensities of personal stress and failures of social adaptation.

Do neuroses vary more specifically with age, the individual, the culture, and other determinants?

Each age-group tends to forget its own earlier experiences and not to anticipate its later ones; hence each age-group is tempted to condemn

the patterns of every other as "neurotic." Children are, of course, more likely to have difficulties related to dependency (in feeding, speech, locomotion); adolescents are concerned about social adaptations (shyness, learning difficulties, delinquency); adults are troubled about sexual, economic, and marital adjustments (occupational neuroses, impotence, frigidity, and other somatic dysfunctions); the middle-aged again become concerned with renewed familial and social insecurities (the depressions of the "menopause" or "male climacteric"); and the aged dread the prospect of senescence and isolation. And yet, cross-cultural studies (J. Gillin, E. D. Wittkower) have indicated that, although every neurosis is in a sense unique, neurotic patterns in all ages, climes, and societies have in general corresponded to our own current psychiatric concepts.

What is the current psychiatric classification of neurotic patterns?

Briefly, as follows:

- 1) *Anxiety states*, varying in severity, characterized subjectively by intense, unformulated apprehension, and physiologically by the familiar "anxiety syndrome" of palpitation, blanching or flushing, sweating, trembling, and in severe reactions, vertigo and fainting. (See *Anxiety*)
- 2) *Dissociative reactions*, which may include escapist wandering or other impulsive and dramatic behavior patterns.
- 3) *Conversion reactions*, in which a prominent feature is what Freud called the "conversion of the libido" into "hysterical" sensorimotor disturbances such as paralysis or blindness, or various "psychosomatic" dysfunctions of the internal organs. (See *Mental Mechanisms*)
- 4) *Phobic reactions*, including obsessions (repetitive, insistent ideas recognized by the subject himself as unreasonable) and their expression in compulsive acts. (See *Phobia*)
- 5) *Personality disorders* with highly diverse social maladaptations as described in some detail above. (See *Personality*)

Are such neuroses ever advantageous?

As we have seen, what one observer would condemn as neurotic, others, in the same or different cultures, would consider commendable. An obsessive-compulsive accountant may be valued as meticulous and tireless by his employer, yet regarded as almost intolerably rigid by his assistant; a subject prone to dissociative states may be derided in some cultures and revered as a mystic and seer in others; a sociopath may be sought out as an engagingly charming fellow by his temporary drink-

ing companions and deplored as a source of deep sorrow to his family and erstwhile friends. However, a neurosis is by definition an eventual handicap to overall contentment and social usefulness.

What treatments are available for neuroses?

The methods of treatment fall into the following categories:

1) *Environmental and Social*: A change of scene, ranging from a vacation (if necessary in a "rest home" or hospital) to a permanent move or to a more favorable environment, may mitigate or remove the stresses of a previously conflictual milieu; similarly, new companionship may provide examples and better modes of social conduct.

2) *Physiologic*: These include the satisfaction of bodily needs, e.g., two days of rest, sleep, and warm food may be all that is necessary to alleviate a state of "combat exhaustion" even with severe neurotic symptoms, provided the soldier's motivations to return to battle are maintained. Or in civilian life, an acceptable marriage may remove various neurotic manifestations of previously unresolved sexual conflicts—or it may not.

3) *Pharmacologic*: Certain drugs, by blurring the memories of previous unhappy experiences and their symbolic extension into the current environment, may give the neurotic a sense of temporary relief and even exaltation. Unfortunately, this may lead to the excessive use of these drugs and result in addiction to alcohol, barbiturates, opiates, and/or the "tranquilizers" (generally, phenothiazine derivatives) or "psychic energizers" (the amphetamines). (See *Psychopharmacology*)

4) *Physical*: The functions of the brain may also be suspended and altered by more direct methods such as depriving it periodically of glucose and oxygen (insulin therapy), by paralyzing its circuits (electroshock), or by actually cutting its substance (lobotomy). However, these drastic measures are likely to leave permanent impairments of memory, reasoning, and judgment ranging from the barely perceptible to the seriously crippling, and are therefore generally reserved for intractable neuroses such as severe and progressive obsessive states, borderline reactions such as "pseudoneurotic schizophrenia," or the functional psychoses.

5) *Psychotherapy*: None of the modes of therapy thus far mentioned is devoid of individualized psychotherapeutic implications, since each is directed by a therapist in whom the patient has confidence, and presumably leads to motivational, intellectual, and social improvements on the patient's part. However, the term "psychotherapy" gen-

erally refers to the attainment of these objectives by the more direct influence of the therapist on the patient through various means of interpersonal communication. These may comprise:

a) Personal guidance with various degrees of imperativeness, ranging from suggestion (J. Babinski), persuasion (C. duBois), or exhortation (V. E. Frankl) to directly enforced commands (Benjamin Rush).

b) These modes of influence may be pursued under the guise of hypnosis, a state in which the subject is in (temporarily) deep and unusually receptive rapport with the therapist. However, as in all other techniques, this cooperation lasts only as long as the subject, mainly for unconscious reasons, really wishes to follow the hypnotist's directions; when he does not, the "trance" disappears and the hypnotic suggestions have no further effect. In this connection, Hippolyte Bernheim once remarked, "It is a wise hypnotist who knows who is hypnotizing whom." (See *Hypnosis*)

c) In the more prolonged method of psychoanalysis (three to five hours weekly over a period of from one to five or more years), the patient, through the use of free associations (uninhibited expression of his thoughts and feelings), and the recall of dreams and other technical procedures, reexplores his current motivations and conduct in terms of his past (especially early familial) goals and experiences, reevaluates his interpersonal relationships with the analyst as a "transference" focus, acquires insight into his formerly deviant value systems and symbol formations, and thus gradually "works through" his various problems to achieve more favorable occupational, sexual, and social adaptations. The methods employed (the use of the couch, the degree of "activity" of the therapist, the jargon and rituals surrounding the therapy, etc.) differ somewhat among the various schools and analysts, but the objectives and probably the essential processes of change are much alike in all.

d) Group psychotherapy attempts to promote social readjustments by employing group discussions and activities under the direction of one or more therapists. Again the techniques may vary from the formation of friendships and communities of interest ("hobby clubs"), through individual confessions leading to mutual acceptance and helpfulness (as in Alcoholics Anonymous), to the revealing but possibly seriously disturbing reenactment by the group of a patient's past experiences and current fantasies, as in J. L. Moreno's "psychodrama." Group therapies may, and in many cases should, be supplemented by individ-

ualized psychotherapy more directly suited to the patient's special requirements.

In effect, to return to the author's "Ur-concepts," the objectives of psychiatric therapy are to make new, more creative, and socially useful modes of conduct seem more profitable and therefore preferable to previously neurotic ones, and thus to restore man's faith in, and capacities to deal with, himself, his fellowman, and his chosen gods. (See *Group Psychotherapy*)

How effective are these therapies?

There is a tradition that in the Egyptian temples and in the Asklepiad sanatoria of classic Greece and Rome—where all the essentials of psychotherapy seem to have been well utilized—about one-third of the patients were "cured," one-third improved, and the rest remained unaffected. In 1938 Jean E. Esquirol, the successor of Philippe Pinel, reported approximately the same results at the Hospital Bicêtre in Paris; ever since, after the inevitable initial enthusiasm, approximately similar proportions of success and failure have been observed to follow nearly every form of "modern" therapy, from analytic abreaction (free emotional expression, as once advocated by Freud) to the very latest practices of Zen Buddhism. The reasons for this partially spurious but demonstrable consistency among diversity are fascinating and significant, but not further relevant to this article. (See *Psychotherapy*)

NEUROSIS AND NORMALITY

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What is the essential difference between normal and abnormal behavior?

It is not difficult to characterize the essential difference between normal and abnormal behavior. Yet the distinguishing marks have become so overlaid by fallacious clichés that by now the only way to clarify the issue is to begin by pointing out what it is not.

A similar elimination of error is necessary in the characterization of organic illness. Thus we do not define physical normality on the basis of frequency. Common colds may be all but universal, but that does not make them healthy. Astigmatism and dental caries are similarly universal, but neither astigmatism nor cavities in the teeth are normal. Nor do we assume that if some organic process occurs in everyone, its universality makes it understandable without further investigation. Everybody's heart beats, but we would not consider it an adequate explanation of the mechanism of the heartbeat to say, "Oh, everybody's heart beats." Yet this is how people often try to evade the difficult task of explaining behavior, i.e., by saying that "everybody acts this way," as though this somehow lessened the need to investigate, describe with precision, and explain. If we are to think clearly about the differentiation between psychological sickness and psychological health, we must start by ridding our thinking of the insidious effects of this confusion between "norm" as a statistical concept and "normality" as a health concept.

Second, value judgments can play no role in this basic differentiation. It is particularly important to grasp the fact that the difference between normal and abnormal behavior does not depend upon whether or not behavior contributes to the comfort of the individual, to his success or failure, to the welfare of society or to its destruction. These are important consequences of differences in behavior, but not its essence. Again the organic parallel will clarify the point. Paralysis is an important but not invariable consequence of polio, but it is not the essential

nature of the disease process. It is a consequence of the invasion and injury of the nerve cell, not the process by which damage occurs.

Nor does the essence of the differentiation depend upon whether behavior is extravagant, odd, fantastic, or orderly and sedate. For example, to stand on one's head in church is odd, but if this is done to pay an election bet or as an initiation stunt, it is not sick behavior. Conversely, there is nothing abnormal about washing one's hands, but when some inner processes take over and force one to wash one's hands until the skin peels off, this simple, natural act acquires a psychopathological import. Nor is it unnatural to eat, but if a child feels compelled to eat until he vomits and then has to eat again and vomit again and eat again, and if after a period of such behavior he suddenly becomes unable to force himself to eat at all, clearly the overdriven patterns of eating, followed by a complete shutdown on any eating, have acquired pathological significance.

It is clear, then, that it is not the instinct-serving nature of behavior, or its eccentricity, or its antisocial or deviant nature that determines whether it is sick or well. Even the most normal and necessary act or thought or feeling can become the symptomatic product of the process of neurosis.

Nor is conformity to any particular culture at any particular time and place in and of itself a sign either of health or illness; nor is rebellion. *Per se*, both can be equally either healthy or neurotic.

Nor do any of the usual medicolegal criteria of sickness throw light on the essential nature of the difference between normal and abnormal behavior. The psychotic in a mental hospital may know the difference between right and wrong as clearly as a criminal or a minister. Moreover, the psychotic, the criminal, or the minister may understand to the same extent both the nature of what he is doing and its consequences. Certainly the ability to recognize right from wrong and to understand the nature of one's own behavior have practical values for society, if only to indicate those persons who should be safeguarded against their own impulses for their own sake and for society's. Yet even as a descriptive differentiation it applies to relatively few individuals, and as a distinction between the processes by which we establish psychological health or sickness, it fails utterly to go to the heart of the matter.

There is another medicolegal distinction which, although imperfect, approximates more closely an adequate characterization of the difference we are seeking. This concerns the presence or absence of an inner compulsion. By implication the law here recognizes the fact that there

are patterns of behavior which are products of involuntary and uncontrollable inner processes. (See *Law and Psychiatry*) Rightly, however, the law concerns itself solely with overt acts, and does not concern itself with subjective thoughts and feelings. These may cause equal distress to patients, but they do not disturb society unless and until they are converted into acts with social consequences. Therefore the law limits its differentiation to the area of overt behavior. The psychiatrist, on the other hand, must reach beyond this. He must extend the same differentiating principle to include all of those subjective aspects of human psychology that comprise thought, feeling, memory, anticipation, and communication.

The psychiatrist summarizes all of these considerations by pointing out that the critical difference between psychological sickness and health lies not in the nature of an act, nor in its cultural setting, nor in its tendency toward conformity or rebellion, nor in its consequences, *but in the nature of the constellation of processes which determine it.* This is because a complex mosaic of inner processes can together predetermine the automatic repetition of any moment of behavior, forcing its repetition irrespective of the pain or pleasure it yields either to the patient or to others, irrespective of success or failure, without regard to appetite or satiety, without regard to appropriateness, conformity, or rebellion, regardless of present or future usefulness or waste, irrespective of rewards or punishments, unmoved by exhortation, reason, or argument, or by appeals to loyalties, affection, or fear. Whenever this happens, i.e., whenever inner processes predetermine in this way the stereotyped, rigid, insatiable repetition of any pattern of behavior, thought, or feeling, then that behavior is pathological; and I must repeat, this is irrespective of the nature of the act itself, even when the act itself is socially valuable, rewarded, and acclaimed. Therefore it characterizes the psychopathological ingredient in the successfully compulsive worker, as well as in the compulsive loafer, in the compulsive rusher as well as in the obsessional dawdler, in the compulsive do-gooder as well as in the delinquent sociopath.

Man did not have to wait upon psychiatry to discover this. We have long known that success can turn to dust and ashes. Indeed, to be depressed over deprivation and failure need hardly be a sign of illness at all. Nor is this a puzzling challenge to technical students of human behavior. It is the well-known depression attending success that challenges us, and that goes to the heart of human life itself and of the differentiation between health and illness. It is a function of psychiatry

to attempt to discover why this tragedy so often clouds human life. In approaching the problem, our guiding principle is precisely what I have been describing: namely, that neurotogenic (tending to produce neurosis) mechanisms can seize upon anything a man can do, from his primitive instinctual functions (such as breathing, eating, excreting) to his human ties of love and hate, his family building, his economic strivings, or his complex, creative, scientific, artistic, and spiritual activities. When this happens, even intrinsically wholesome activities and those which are biologically, socially, and culturally valuable can be distorted to serve neurotogenic and unattainable goals. Thereupon they become characteristically inflexible, rigid, stereotyped, insatiable, and repetitive. This is the fate of love itself when it is possessed by neurosis. This is the source of all that is rigid, unlearning, and unteachable in human nature. It is this that deprives human nature of its potential plasticity, limiting man's freedom to respond appropriately to the signals arising from biochemical changes within his body, and limiting equally his capacity to respond appropriately to cues which arise from changes in his external environment. Thus it deprives him of the capacity to adapt constructively and creatively to changing internal and external circumstances, limits his capacity to learn from his own experience or that of others, and impoverishes the capacity of each generation to transmit any wisdom to the next. This is the neurotogenic source of the unchanging quality of human nature.

The universal, ubiquitous, but masked neurotic ingredient in human nature is what has put a ceiling on man's potential for psychological evolution.

Are we ever justified in talking about whole personalities as normal or abnormal?

In answering this question, it is not the statement of the general principle that is difficult, but its application. For instance, it is easy and quite correct to say that when the important areas of any person's life are dominated by psychological processes which make behavior rigid, stereotyped, and repetitive, one can speak of such a person as being "neurotic." The very same processes operating in relatively unimportant areas would allow that person to seem to be quite healthy, until something in the general circumstances of his life changed in such a way as to raise the price that he has to pay for the masked neurotic ingredients in his nature. For instance, there is nothing intrinsically important about being afraid of heights, but the price that one must

pay for that fear will vary with occupation, domicile, etc. A man with a latent height-phobia who lived on a flat plain with no high buildings, or high trees, or high hills could be free of symptoms. He might not even know that he harbored such a phobia, which might be represented only in an occasional anxiety dream. That same man transplanted to the Rocky Mountains or to New York City would find himself paralyzed by a state of incessant terror lest he would be called upon to climb a mountain, cross a high bridge, or visit a friend or a business client in a high building. Thus, the price paid for a height-phobia varies for a farmer, an elevator operator, and a construction worker on bridges and skyscrapers.

A situation such as this creates a double fear—the immediate terror that is evoked by the trigger itself (in this instance, height), and the anticipatory anxiety lest at any moment one may have to face the dreaded trigger. One such man spent every Friday worrying lest at some time during the coming weekend his wife might ask him to visit her ailing mother in the country, which would necessitate his driving over a high bridge. Facing up to the fear and “mastering” it gave no lasting relief. The next time was just as hard. Giving in to the fear, submitting to it, dodging the challenge by using trumped-up excuses such as headaches, or last-minute business calls, precipitated the patient into secondary states of guilt, humiliation, depression, despair, irritability, and anger.

These are the differences in the secondary feedback from primary neurotic symptoms. They occur irrespective of cultural variations, but there are other differences in the feedback, which are culture-bound. For example, in most occidental cultures hard work in one form or another is encouraged and rewarded from early childhood to the end of life. Where hard work is rewarded, as in our own culture, the tax collector for an overdetermined work-compulsion fails to catch up with us until late in life. Indeed, in our culture an obsessional worker may not fall overtly ill until his fifties or sixties, although his family may have been paying the price for his neurosis for years. On the other hand, this man’s “twin,” the child or man with an obsessional work-block, is penalized almost from the first time he tries to feed himself or to tie his own shoes or to button his own clothes. He delays a family impatient to set forth on a picnic. He misses trains. He fails to get to school on time, or to prepare for his examinations, or to write his thesis on time, etc. The neurotogenic mechanisms that initiate these two seemingly opposite patterns may be identical, but the effects of the feed-

backs produced are as different as day and night. One person lives with abundant gratifications, praise, rewards, prizes, doors opening for further opportunities. The other lives with shame, punishment, humiliation, defeat, and envy. For him life is a cumulative story of opportunities missed, of doors closed to advancement. The compulsive rusher and worker and the compulsive dawdler and procrastinator may indeed be twins—reverse sides of the same medal. Yet the consequences vary so profoundly that despite identical roots, they feed profoundly different distortions back to life at every step.

This is why we will think clearly and usefully about this problem only if we think of neurosis, not as a state of illness acquired from without, like an infection, but rather as a distortion of the growth process itself occurring because a neurotogenic potential exists in all infants who are not imbecilic, and because out of this universal potential arises a neurotic process that is equally universal, but that varies qualitatively and quantitatively, with crucial differences in the endless chain of consequences, which feed back fresh distortions. Viewed this way, the so-called psychoneuroses are seen to be the least important and also the least frequent aspect of the neurotic process. They are "odd" and therefore attract attention and are easily recognized. Indeed, they are practically self-diagnosing when they precipitate as states of illness out of the underlying veiled continuing neurotic process. They are dramatic and painful and therefore they have been overemphasized. It is the neurotic *process*, not the neurotic *state*, which determines the course of men's lives and which, therefore, is of paramount importance in human culture.

What are the essential characteristics of normal (i.e., non-neurotic) behavior?

At the heart of the matter is the freedom to change. This does not mean submissive pliancy. It does not mean a noncritical acceptance of the inequities of life. It does not mean adapting, adjusting, and accepting at any cost. It does not mean bending the pregnant hinges of the knee. It means the freedom to adjust appropriately to changing signals, whether these arise from within the body out of changing tides of biophysical and biochemical processes, or from changes in external circumstances. It means the capacity to sustain effort when this has any chance of achieving its goal, but free of any compulsive necessity to maintain the same effort when it has proved to be inappropriate and ineffectual. Flexibility such as this brings with it the freedom to learn

from experience, freedom, therefore, from the all-too-human tendency to repeat error blindly. These are the essential characteristics of normal behavior. This is how human beings behave when they are not dominated by unconscious processes arising out of unconscious conflicts over unconscious and attainable goals. This is how men behave when behavior is determined predominantly by conscious and preconscious processing.

What do preventive psychiatry and preventive education in the home, in the school, and in the clinic aim to accomplish?

Preventive psychiatry and preventive education aim to expand the area of human life in which conscious and preconscious processing hold the upper hand, and to shrink the darker empire in which unconscious, neurotogenic conflicts are dominant. With this preventive goal clearly in mind one can reexamine the structure and method of family life, of the day nursery, the kindergarten, the elementary school, and indeed the entire educational process on into higher education. With this in mind one can examine the impact of our every cultural institution, asking whether it tends to reinforce that which is rigid and unlearning and unmodifiable in human personality, or whether it tends to reinforce the capacity to grow and to change. Where the developmental process has failed, one can bring therapeutic processes to bear with the same objective, namely to expand the area of human life in which conscious and preconscious processes dominate, thereby shrinking the area in which domination by unconscious processes dooms our creative potential to self-destruction. It is this that can free the individual for learning and creativity.

What are the important problems surrounding abnormal behavior?

For the sake of simplicity, I have made the basic distinction between abnormal and normal behavior without reference to many of the important problems that surround it. In the future, however, we will have to grapple with these issues. About each we will have to ask certain questions:

What role, if any, does each variable play in the primary distortions of growth that initiate the neurotic process? What role does each play in sustaining and continuing it, or in complicating the initial distortion? What are the varied ingredients in the neurotic process, once it is under way? What, for instance, is the role of emotions in initiating and accompanying abnormal behavior? Do emotional disturbances produce

abnormal behavior, or are they one of the consequences of abnormal behavior, or are they both? When, if ever, are they corrective? And when do they intensify the disturbance? What role is played by identifications on conscious, preconscious, and unconscious levels in establishing conflicts—unconscious, preconscious, or conscious? Which of these can be said to be primary? Which secondary? Which tertiary? What is the role of organic or constitutional differences? What role is played by cultural differences? Do these increase or decrease the vulnerability of a people to disturbed behavior? Or do cultural and economic differences merely modify the forms which abnormal behavior will take, and the prices paid for it? What, if anything, do we know about how the initiating distortions arise, and what can we do to prevent or limit or resolve them in early life?

All of these questions must be asked in any rounded consideration of the total problem of the role of the neurotic process in individual life and in human culture.

NUTRITION AND MENTAL HEALTH

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What is nutrition?

Nutrition can be defined as the process of feeding or being fed. It includes the sum total of all physical and chemical preparations and reactions involved in growth and in the maintenance of proper body functions.

What is the science of nutrition?

Scientific nutrition deals with the production, distribution, and composition of foods in general and the chemical materials that nourish living organisms. It is also concerned with the amounts of the constituents that are required to maintain health and with the body processes by which they are utilized.

Through scientific nutrition's vast ramifications and implications it is closely interrelated with the fields of agriculture and public health and welfare, with the biological; sociological, and psychological sciences, and with marketing for public consumption on local, national, and international levels.

What is metabolism?

It is the sum of all the body processes in producing and maintaining living substance. It is concerned with the building up (anabolism), and the breaking down (catabolism), of tissue to manufacture energy for utilization by the organism.

How is nutrition important to mental health?

The modern concept of therapeutic and preventive medicine is holistic, that is, the body and mind action and interaction are interrelated and are not separate entities. Good physical health tends to be symbiotic with good mental health and vice versa. Anything affecting one will usually affect the other.

It has been determined that a deficiency or overabundance of nutrients can create chemical changes in the body that result in improper functioning of metabolism affecting the total nervous system.

The situations that are evolved in the feeding process are most important factors in the psychological development of the mind, and in its thinking and behaving functions.

What is the history of nutrition?

Food, of course, has been a vital factor in the history of mankind. As early as the sixteenth century, it was recognized as a cause and cure of many diseases.

It was not until the eighteenth century that the study of nutrition assumed scientific status. The discovery of oxygen by Joseph Priestley, and the work of Antoine Lavoisier in oxidation, metabolism, and caloric energy determination stimulated thorough nutritional investigation.

In the nineteenth century, methods were developed for the analysis of the various food components, and the importance of proteins, carbohydrates, fats, and minerals was noted.

In the latter part of the nineteenth century and early in the twentieth century, it was discovered that there were other essential nutrient factors. These were called "vitamins" by Casimir Funk. Nutritional diseases were definitely found to be due to the lack of these accessory food factors.

About 1920, Massachusetts and New York became the first two states to create departments of nutrition in their health departments.

The science of dietetics developed as the actual application of nutritional knowledge in the proper feeding of people.

From 1900 on, steady advances have been made in the field of nutrition through collaboration with all other scientific fields. Modern nutrition is now a world responsibility.

What is adequate nutrition?

This is what a normal diet is usually considered to have. It should provide all nutrients in proper amounts and proportions essential for the maintenance of optimal health and efficiency.

The United States Department of Agriculture has issued a helpful guide for proper food selections. Recommended foods have been divided into four groups:

The milk group consists of milk, cheese, and ice cream, with suggested amounts of three to six cups daily or acceptable substitutions.

In the meat and fish group at least two servings per day are suggested.

The vegetable and fruit group includes four or more daily servings, with a dark green or deep yellow vegetable at least every other day, and a serving of fruit.

The bread-cereal group includes at least four daily servings of bread, cereal, noodles, rice, etc.

An excellent source of detailed information on the composition of foods, raw and processed, can be found in the Department of Agriculture's *Handbook* #8.

What are essential foods?

They are foods whose nutrients are indispensable to the proper functioning of the body. These nutrients cannot be manufactured in adequate amounts by the body; therefore, they must be supplied through the diet.

What is an optimal diet?

This is an improved, nutritionally adequate diet able to meet all stress requirements encountered in everyday living.

What is the significance of optimum nutrition?

Optimum nutrition can act as a primary defense against infections, metabolic deficiencies, degenerative diseases, and physical and psychological stress. It can be of great aid in stimulating a quicker convalescence and recovery period of the ill.

What are the elements of good nutrition?

Emphasis on unlimited consumption of any food should be avoided because of the danger of eliminating other essential foods. Moderation, variation, and some basic knowledge of the body needs are essential.

The important food constituents are carbohydrates, fats, proteins, minerals, vitamins, water, and bulk (fiber), in proper caloric proportions.

Carbohydrates, such as sugar and starches, produce energy in the body.

Fats supply important acids, vitamins, certain essential foods, energy, and make the diet more palatable.

Proteins are necessary for the building and repair of body tissue.

Some proteins cannot be manufactured by the body and must be replaced daily through the food intake.

Minerals are important for dentition, bone growth, and for regulating certain other body processes.

Vitamins are necessary in the food intake because many of them cannot be produced by the body in adequate amounts.

Vitamin A is essential for normal vision.

The B vitamins are important for the normal functioning of the nervous system and for the prevention and cure of certain deficiency diseases and some forms of anemia. They prevent and cure beriberi. The niacin content prevents and cures pellagra. Folic acid prevents and cures certain forms of anemia, and B₁₂ controls pernicious anemia.

Vitamin C (ascorbic acid) helps to prevent and cure scurvy and is necessary for strong body cells, blood vessels, gums, teeth, and bones.

Vitamin E may be an important factor in the reproductive cycle.

Vitamin K is considered an antihemorrhagic vitamin.

Water is an essential component of all body processes.

Bulk (fibrous residue of foods) is of great aid in the digestive processes.

Calories (units of heat) supply the energy that the body requires to function properly. A normal healthy male, depending upon his activity, requires from 2,500 to 4,500 calories per day. A normal healthy female requires from 500 to 1,500 calories *less* than the male.

Of what importance are vitamins in mental health and mental disturbance?

Vitamins are organic substances that act as catalysts in the enzymatic action of proper metabolism for normal tissue growth. Enzymes are of biologic importance in governing and directing the necessary metabolic activities in living cellular energy.

Vitamin deficiencies can create neurological lesions, among other body changes, accompanied by severe mental aberrations. These mental symptoms can precede other symptoms.

Long continued use of certain vitamins, especially vitamins A and D, can produce toxicity.

Normal individuals eating a variety of nutritious foods need no prophylactic or therapeutic vitamins or minerals.

What is avitaminosis?

When a deficiency of one or more of the essential vitamins causes a disease, a condition known as avitaminosis occurs.

What is the relationship of hunger and appetite to nutrition and mental health?

Hunger is an instinctive physiological response. Appetite is a learned reaction. The individual responds to food through the thinking processes and the special senses. The consistency of the food, and its odor, feel, color, and preparation, the environment, and the individual's thoughts all stimulate previous learned experiences concerning food. Whether the food is accepted or rejected depends not only upon the physical state of the senses of sight, sound, taste, smell, and touch but also on the mental, physiological, and cultural experiences of the individual.

Food, therefore, becomes a highly emotionally charged substance that can manifest tremendous control of the person in his actions and reactions to the world he lives in. Food is also symbolic and can be used as a token of love, security, sacrifice, and gratification. The psychological incorporation into oneself of the strength and character one attributes to particular foods may have significant meanings.

How do the emotions affect digestion?

Anxiety and worry can depress the digestive processes. This interferes with the learned associated responses of hunger and appetite and thus affects general nutrition, since proper diet is not instinctively controlled.

In some individuals the influences of emotions on gastric activity may be augmentative or they may be inhibitory, depending on whether the emotional experience is of an aggressive or of a depressive type. It is believed that it is not only the manifest or conscious emotions that determine whether the stomach will be stimulated or inhibited, but also that these responses are determined by the unconscious, latent, or symbolic content of the emotional state. (See *Emotions*)

How do various kinds of foods affect hunger and appetite?

The stimulation of hunger and the satisfaction of appetite also depend upon the type of food and the physiological and biological responses.

The metabolism of carbohydrates (e.g., fruits and vegetables) requires very little energy. They are digested and absorbed quickly and remain in the stomach for only a short period of time. This causes a rapid rise in blood sugar, which almost immediately satisfies hunger.

The metabolism of proteins (e.g., meat, eggs, fish, cheese, poultry)

demands a greater expenditure of energy. The time period for their digestion and absorption is prolonged, and therefore they remain in the stomach for a longer period of time. The appeasement of hunger with proteins takes a little longer than it does with carbohydrates, but satiation lasts longer. Proteins are not usually stored in the body and therefore should be replenished daily. If they are not replenished, bodily needs will draw upon other stores, and if this condition is prolonged it can be quite destructive. Protein foods are of particular value in weight reduction because their digestion increases metabolic activity.

Fats and foods cooked in fats require the longest period of time for digestion and absorption. They therefore remain in the stomach longer and have a greater satiation value.

The emptying time of the stomach must also be considered as a controlling factor in the appeasement of hunger and appetite.

Liquids give a minimal satisfying feeling because they leave the stomach in fifteen minutes to a half hour.

Carbohydrates leave the stomach more rapidly than the proteins. Fats slow up peristalsis (intestinal contractions) and therefore remain in the stomach longest.

Fibrous foods rich in cellulose are digested very slowly.

A mixture of all of the types of foods is best, remains longest in the stomach, gives a sense of fullness, and is most satisfying.

The emphasis on one type of food to the exclusion of others can be very dangerous.

The individual's eating habits can have a direct bearing on nutrition. Eating rapidly, "snacking," and nibbling do not help nutrition. These mannerisms may be the result of habit, of a reaction of nervous energy, of the need to be quickest, or of psychological denial as to the quality and quantity of food. These eating mannerisms might also be an acting out of aggression or hostility signified by biting or chewing. Although hunger may be quickly satisfied by eating rapidly or between meals, it quickly returns following such eating.

Slower eating appeases hunger slowly, but satiation lasts longer. The person therefore does not eat as much and feels less need to nibble.

What are the theories about hunger and appetite?

The following are some theories concerning the physiological and emotional factors of hunger and appetite demands:

1. The glucostat theory states that hunger depends on the different

levels of comparative blood sugar in the arterial and venous blood circulation.

2. The appostat theory maintains that there is an appetite regulating mechanism in the brain at the base of the skull located in an area of the brain called the hypothalamus. Some pathology or malfunction of this area may be present and interfering with its normal control. This particular area responds to chemical, physiological, and emotional stimulation.

3. The psychestat theory states that conscious and unconscious demands control the individual's reaction to hunger and appetite, that this reaction is the sum total of the integration of all emotional experiences and physiological drives concerning the meaning and needs of food for the individual.

Excluding organic or endocrinological malfunction, a significant cause of nutritional disorders can be some psychological disturbance of the appetite. This may be the result of a distorted body image and confused values of the person involved.

Psychological disturbance of the appetite may signify, for example, a conscious or unconscious wish for pregnancy (the female may be acting out a childhood fantasy that pregnancy occurs in the stomach through the oral route). Psychological disturbance of the appetite may also be the result of identification with a peer having a similar habit; may be a reaction to authority figures or a discharge of nervous energy through sublimation and substitution; or may be an unconscious wish or desire to commit suicide either through undernourishment or overnourishment. Such disturbance may also signify feelings of inadequacy and insecurity, creating an overt condition as a face-saving device to withdraw from reality situations and social contacts.

It can readily be seen that the individual must be considered in his totality if any attempt is to be made to try to understand his reactions and responses to food.

What about food fads and myths?

There are no magical, miracle, or perfect foods. The use of one food or several foods to the exclusion of others can have an adverse effect on the physical and mental well-being of the person.

No particular food will have a direct effect on a particular body part such as the brain, the genitals, muscles, etc.

Despite efforts of public health education, many old-fashioned notions still persist. Robust health was once associated with corpulence.

An obese person was thought to be easygoing, good-natured, and happy. The slender person was thought to be nervous, irritable, short-tempered, and grouchy. These are all superstitions and usually are not entirely true.

There are many more food myths based on the individual's familial, environmental, cultural, and national background. These can easily control nutritional needs and desires. These food myths may be accepted emotionally as true by sensitized, suggestible individuals, and if rewards are not obtained as predicted, disappointment and frustration could precipitate a physical or emotional illness comparable to any psychosomatic disease.

What are the dangers of food quackery?

The exploitation of the public by misleading advertising statements of food quacks can be a menace to public health and welfare through economic waste and the impairment of nutrition. Many people believe these claims and delay seeking proper medical advice. The United States Food and Drug Administration has published the following comments on some of the claims:

1. The claim that it is impossible to get an adequate diet without food supplement is false.

2. The claim that malnutrition is caused by soil depletion and that chemical fertilizers are poisonous is false because it is the genetic make-up of the seed rather than the soil composition that affects the nutritive value of food.

3. The claim that foods are overprocessed and that therefore much of the nutritive value has been lost is erroneous. Processed foods may at times be better than fresh foods that have been shipped over long distances.

4. The claim that subclinical deficiency symptoms are common is false. Nutritional deficiency is not common in the United States and only qualified physicians can diagnose deficiency diseases.

It can also be dangerous to extensively use synthetic preparations to the neglect of natural foods since the latter may contain nutritive materials whose existence we are not yet aware of.

In an article prepared by the Washington office of the American Medical Association it is stated that the American Medical Association and the federal government have declared an all-out war on medical quacks and charlatans who bilk the sick and gullible of hundreds of millions of dollars each year through useless gadgets, phony nostrums,

fake reducing pills, and through many other gimmicks of the medicine show trade.

George P. Larrick, Commissioner of the United States Food and Drug Administration has stated, "The most widespread and expensive type of quackery in the United States today is in the promotion of vitamin products, special dietary foods, and food supplements. Millions of consumers are being misled concerning their need for such products. Complicating this problem is a vast and growing 'folklore' or 'mythology' of nutrition which is being built up by pseudoscientific literature in books, pamphlets, and periodicals. As a result, millions of people are attempting self-medication for imaginary and real illnesses with a multitude of more or less irrational food items. Food quackery today can only be compared to the patent medicine craze which reached its height in the last century. Especially disturbing is the tendency shown by some big and hitherto respected food concerns to use quackery in their sales material."

What effect does advertising have on the consumption of foods?

Some segments of the food and advertising industries, well aware of the public's eagerness for quick results and of its interest in magical formulas, take advantage of this susceptibility by resorting to symbolizations and subliminal meanings to which the general populace has been previously conditioned. Some practitioners of advertising have fictitiously or otherwise subtly created associated ideas that certain products will create confidence, beauty, brawn, popularity, etc.

All people are particularly suggestible to claims made for foods and can easily be misled by unscrupulous methods concerning magical and miracle foods, and will usually react favorably to the mental manipulation employed in some forms of advertising and promotion.

Some advertising takes advantage of the meaning of food by using people's status, drives, expectations, idealized images, fantasies, etc., to create and stimulate demand for certain products.

How is food related to psychological development?

The feeding process is an instinctual drive necessary for survival and is one of the earliest of life's experiences. Any interference with this process will threaten the self, will result in anxiety, and will affect human behavior.

The adaptive conditioning responses formed during the feeding

process to a great extent control personality growth and future relationships.

R. Wollen has stated that there are more food dislikes among neurotic young people than among non-neurotic controls.

Bruce Buchenholz has declared that the foremost model for pleasure seems to be the relationship of mother and infant, particularly during the feeding process.

Food, then, can become meaningful in various ways through its associations and symbolizations and can assume exaggerated values linked with love, security, satisfaction, and status. It can be used as a crutch for solace, for escape from life's responsibilities, for self-reward, punishment, prestige, and as a weapon. Uncontrolled food compulsions can cause depressions, frustrations, withdrawal, and guilt.

The types and quantities of food are dictated by the economy, culture, hunger, appetite, environment, social, moral, and religious values, taboos, age, sex, and physical and mental health. A starvation diet can cause a person or group to become suspicious, hateful, vengeful, and hostile.

Diet and its control can be a most important tool as adjunctive therapy in the treatment and rehabilitation of the mentally ill.

In order to improve faulty nutrition, nutritional knowledge or insight is not enough. It must be combined with conscious and conscientious participation of the individual in the adaptation of new and improved food habits.

Intelligent management of the feeding problem, with warmth, love, and understanding, can act as an important preventive against future unhappiness.

What is malnutrition?

Malnutrition, as defined by the committee of therapeutic nutrition of the Food and Nutrition Board, National Research Council, in Washington, may be classified as primary or secondary.

Primary malnutrition is defined as an intake of nutrients that is inadequate or excessive for normal body requirements. This condition is usually associated with faulty selection of foods, with actual food shortages, or with economic limitations in the purchase of protective foods.

Secondary or conditioned malnutrition can exist even when the diet would be adequate for normal conditions. It results from failure to

absorb and utilize nutrients, and from increased nutrient requirements or excessive body losses.

It is thought that at present 75 per cent of the world's population is subject to a deficient diet.

What are some prevalent causes of malnutrition?

1. Poor eating habits
2. Faulty diets
3. Illnesses that interfere with an adequate food intake
4. Inborn errors of metabolism
5. Excessive use of medication, which can interfere with normal intake, digestion, absorption, and utilization of food
6. Poor dental and mouth conditions
7. Chronic alcoholism
8. Failure to increase or decrease the dietary intake according to the demands of increased or decreased physical activities and according to the body's growth and maturation needs
9. Failure to replenish important nutrients lost from foods in their processing, marketing, storage, and distribution
10. Failure to meet the required lawful standards of food fortification and enrichment

What are some of the signs and symptoms of nutritional deficiency?

1. Nervousness
2. Irritability
3. Depression and confusion
4. Loss of interest in oneself and the environment
5. Insomnia
6. Digestive disturbances
7. Ulcerated sores of the corners of the lips and in the mouth
8. Overweight and underweight
9. Goiter
10. Bone deformities
11. Visual difficulties
12. Generalized edema (an abnormal accumulation of fluid in the tissue spaces)
13. Memory and nerve impairment
14. Skin lesions
15. Muscular weakness and fatigue

What are deficiency diseases?

They are nutritional disorders that primarily result from lack of a specific vitamin or accessory food substances (or from a diminished amount of the basic nutritional substance) in proportions adequate to maintain the individual in a state of optimum health.

Some of the common deficiency diseases are beriberi, scurvy, rickets, and pellagra, some of which are accompanied by mental disorders.

What are metabolic diseases?

Metabolic diseases are the results of inborn errors of metabolism or metabolic derangement of normal physiological processes. They will respond effectively, both physically and mentally, to specific diets combined with other forms of treatment.

What conditions can result from metabolic disorders?

Obesity is usually the result of an excess of caloric intake over output and will respond adequately to caloric control. (See *Obesity*)

Diabetes is characterized by a decreased ability of body tissue to utilize carbohydrates, which are the chief nutrients of the brain. This deficiency when prolonged and uncontrolled can cause degenerative changes in the brain, spinal cord, and nerves. About 60 per cent of adult diabetics can respond adequately to proper diet and exercise.

Low blood sugar states, thyroid conditions, gout, and underweight will usually respond adequately to combined therapy.

In children, mental retardation can result from some metabolic disorders such as hypothyroidism from iodine deficiency and phenylketonuria caused by the body's inability to utilize an essential amino acid. These conditions will respond to prompt and efficient dietary measures. (See *Mental Retardation*)

What are the neurological aspects of malnutrition?

Recent advances in the field of psychopharmacology have stressed important biochemical factors in mental health. Chemicals such as serotonin, various enzymes, tryptophan and other essential amino acids have recently been recognized as exerting control of neurohumeral activity. Any aberrations can have a profound effect on this behavior.

The nervous system is predominantly dependent upon blood sugar and oxygen. Deficiency of either leads to a wide spectrum of clinical syndromes.

Faulty nutrition can cause pathological changes in nerve cells, with disintegration and degeneration of nerve fibers affecting brain and spinal pathways.

Most nerve fibers are normally insulated by a protective myelin sheath. In pathological changes, this protective insulation disintegrates and may show up in various complaints involving all forms of changes in sensations of touch; it may result in pain, temperature, muscular wasting, numbness, and anesthesia and paresthesia of various body parts; it may cause feelings ranging from mild weakness to complete paralysis, tics, muscular fibrillations and atrophy, mental retardation, memory impairment, confusion, and complete disorientation. It can also manifest itself as neuritis, neuralgia, polyneuritis, depression, tension, anxiety, neurosis, or as a frank psychosis. (See *The Nervous System and Behavior*)

What is the significance of malnutrition in aged persons?

M. Neal has reported on a psychiatric study of 150 persons over 60 years old. He found that 45 per cent of the group were suffering from acute brain syndromes. Of this group, 24 per cent of the cases were the result of malnutrition, 22 per cent of alcoholism, and 18 per cent of cardiac insufficiency.

The elder 8 per cent of the nation's population furnishes 25 per cent of all first admissions to mental hospitals.

Psychiatric syndromes may be the first manifestations of the physiological disturbance among older people, and this psychiatric reaction often serves to call attention to the physiological problems. (See *The Aging and the Aged*; *The Senile Psychoses*)

What are some of the future problems in the field of nutrition?

Atomic energy is now assuming a most important role in modern civilization. The problem of radioactivity in food demands close supervision, understanding, investigation, and evaluation of its possible effects on man.

To provide proper nutrition for our increasing numbers of aged persons, is a continuing and vastly important problem.

To increase the food supply to match population growth or to adjust populations within the limits of available food, is the hope of the future.

The evaluation of food concentrates in transportation such as space flights needs continuing work and investigation.

To supply adequate basic foods to countries where predominantly staple food grains such as rice, wheat, and corn are used almost to the total exclusion of other foods, will become an ever greater problem.

What emotional and psychological impact do nutritional disorders have on the individual?

Individual nutritional requirements and metabolic patterns are determined by environmental demands and inherited factors. It has been demonstrated, however, that controlled nutrition can modify the expression of the genetic makeup in many nutritional disorders such as obesity, diabetes, metabolic disturbances, and degenerative diseases.

A maladjusted individual so afflicted with any one of these inheritable traits could therefore blame others for this condition in an attempt to deny any personal responsibility for divergence from the rigid self-discipline that is required to maintain therapeutic nutritional control. Projected feelings of hostility and anger toward parental figures could result in conscious or repressed guilt and aggravate any existing condition.

The resulting anxiety or depression arising because of inner misunderstood or misinterpreted drives can create a tendency to continue with the compulsive disorganized nutrition. This can become habitual, affecting the individual's physical and mental states and interpersonal relationships. His poor nutritional regime is continued because it acts as a substitute, although a poor one, for masking unorganized conflictual feelings, and because it temporarily seems to decrease anxieties. These mental defense mechanisms become detrimental because of the severe disabilities that arise.

The individual then begins to feel uncomfortably different from others. His mobility can become decreased because of his physical disability, mental attitude, or an illogical wish to withdraw from competition with others because of his unfounded belief that he really is different. Situations may be provoked, consciously or otherwise, to prove that the reasons for his low self-esteem are actually true.

These feelings that arise stem from an emotional maladjustment to physical and physiological factors. As a result, the individual begins to feel discriminated against and excluded from social relationships. His seeming rejection by others convinces the person that he is really different and he begins to feel unwanted. Preoccupation with himself occurs and creates a further withdrawal from "real life" situations.

The psychological adjustment of a person who has any kind of dis-

order is of great significance. Any illness can, of course, aggravate any other physical or emotional problem. If the illness tends to be chronic, feelings of insecurity may develop, and undue demands may be made upon the family. To avoid undesirable emotional crises, good living habits are essential. The earlier such habits are formed, the less difficult it is to become firmly established, with satisfactory adjustment.

What emotional and psychological impact do a child's nutritional disorders have on his family?

The family may feel oversolicitous toward a disabled child and may develop a tendency for overprotection or denial. This may be pathologically manifested by not admitting or recognizing any disability. The family may thrust undue expectations and demands upon the child, who may not be able to cope with these demands, thereby aggravating his condition. The family might also indulge in the expression of self-guilt, which again does not help the situation.

The more directly the issue is faced, the easier it will be to work out a healthy adjustment.

The family must be properly educated about the child's nutritional disorder. If it is one for which there is no known cure, such as diabetes or mental retardation, members of the family must face the issue directly and accept full responsibility for helping themselves and the child meet the situation adequately.

The family of a diabetic child might also feel that the child is different and that there is some stigma attached to his condition. These feelings could be projected to the child. The child might therefore feel too insecure or embarrassed to participate in activities with other children. His fear of a possible insulin reaction may cause him to withdraw even further, forcing him to become overly dependent upon his family. The child may then need to rebel against this dependency. To show his independence he may become hostile and aggressive or may avoid his dietary needs.

Similar situations may exist in other disorders. The retarded child is rejected by his peers and contemporaries. He is shunned by society. A state of dependency and infantilism is fostered by the family. This rejection and overprotectedness soon makes the child aware of his weaknesses.

One must be aware, however, that many times the emotional conflicts centering around the disability are more disabling than the nutritional problem.

The environmental care of the disabled person and the psychological attitudes of all who are involved can be the most important factors for the proper adjustment of the disabled individual.

What emotional and psychological impact do nutritional disorders have on the community?

There is a tendency for the community to discriminate against the person who is obese, diabetic, or ill with any other metabolic disorder, especially when some emotional factors are present.

Such discrimination may be due to incorrect or faulty education and knowledge, namely, that the obese person is indolent and lazy, or that the diabetic is seriously ill and is unpredictable because of possible dangers of coma or shock, or that a past history of some emotional disturbance in an individual may have potentially dangerous sequelae.

Because of this discrimination, the person's behavior is scrutinized for the smallest deviation, and the individual may find himself constantly on guard trying to prove himself. This results in self-preoccupation and can interfere with his functioning to his fullest potential and capacity.

The crucial factors in the improvement of these conditions is the total acceptance and integration of the disabled person by the family and the community.

The full support of the community is essential, not only in the prevention of malnutrition but also in the proper support of the afflicted individual so that good general health and economy can be preserved.

What emotional and psychological impact does nutrition have on the world?

The Food and Agricultural Organization of the United Nations in its investigation has stated that a large percentage of the world's people are undernourished and that there seems to be little hope that the world's food supply will increase much during the next few decades. The food problem has become a most urgent one. About 60 per cent of the world's population live in underdeveloped countries where there is great need of more and better foods. (About 40 per cent of the world's people live in India, China, and Pakistan.) This critical shortage of food can affect the welfare of the world by stimulating certain countries to try to obtain or control resources that do not belong to them.

It is believed that approximately two-thirds of the world population

is constantly engaged in a struggle for food. Fear of famine and chronic starvation stimulates frustration, tension, and envy among masses of people, who will ultimately resort to violence.

Peoples accustomed to depending on one staple food, even in an area of plenty, can find it quite difficult to break away from the habit and may eat the staple while almost completely eliminating other foods from their diets.

These single staple foods usually are deficient in some necessary nutrient and can have a great effect on the mental, physical, and emotional development of a group of people.

The well-nourished individual is better able to cope with life and reality and to accept a responsible role in society.

Food, because of its effect on health and efficiency, has played a historic and important role in the rise and fall of nations. The control of nutrition therefore is actually a world responsibility.

How can malnutrition be prevented?

The infant is one of the most helpless of mammals. For its normal development, psychological, physical, and environmental needs must not only be supplied but adequately motivated. There is little if any instinctual selection for what is proper. To meet these demands proper models must be supplied.

The individual's growth is dependent on genetic factors, parental figures or their surrogates, the family constellation, education, and conditioning that permits adequate development of object relationships.

It is therefore important to establish good food habits early to prevent mental and physical hunger and starvation.

The public must be guarded against poor food consumption and constantly informed about the importance of proper and adequate nutrition for the establishing and maintaining of good physical and mental health.

Attitudes, patterns of living, and undesirable cultural beliefs concerning food notions may have to be changed through the use of controlled avenues of advertising media and the education and re-education of all ages of the general population.

Foods should be introduced and given in a natural, normal manner. No particular foods should be stressed or focused upon. Foods should not be associated with reward, bribery, or force.

Parents and parental figures must be taught how to act as proper models for the growing child in his relationship to food. In order to

form good eating habits there should be no rigidity in the feeding process. If indicated, all necessary food supplements and concentrates must be supplied.

There are three groups of people who seem to be most susceptible to poor nutrition.

One group consists of adolescents who may express their hostility toward their peers through food. Their desire to be treated as adults may cause them to reject the wholesome foods of childhood. Because of their growth changes they may develop distorted and disliked body images of themselves, and this may influence them to change their diets and eating habits in harmful ways.

Nutrition also plays a most important role in the health of our increasing population of older persons. The aged tend to follow earlier established life patterns, which must be changed because of decreased physical activities and lessened energy requirements. Feelings of being unwanted and rejected, even if not true, may be expressed by general complaints about food, signifying retaliative hostile feelings. This may be manifested by overeating or undereating. Due to the loss of well-being and resulting lowered self-esteem, aged persons become very susceptible to the claims made for so-called miracle foods.

In the third group is the chronically ill person. As a result of a decrease or loss of hope he may have a tendency to regress to a childlike state. He may have a wish to be taken care of and to be fed, thereby removing from himself all responsibility for living. (See *Mental Health of the Physically and Chronically Ill*)

Good nutrition in mental illness, as in any other illness, stimulates an early recovery. It provides the necessary nutrients, security, and pleasure, and shows the ill person the required sympathetic understanding signifying that someone is interested in him.

It is, therefore, not only important to protect the infant and child from physical harm but also from psychological trauma and nutritional disorders. The early orientation of parents as to how to obtain the proper psychological and nutritional objectives is a community, national, and international responsibility.

OBESITY

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What is obesity? Is there a difference between obesity and being overweight?

Obesity is a condition characterized by an excessive amount of fat in the fatty (adipose) tissues of the body. Common medical usage defines as obese, any person whose weight is more than 20 per cent over the desirable weight for his age and height (according to the standard height-weight tables). Overweight is most often due to obesity, although certain very muscular persons, such as professional athletes, may also be considered overweight when measured against the standard tables.

What causes obesity?

In a very general way we know what causes obesity: it is due to taking in more calories (units of heat) in the form of food than are put out in the form of energy. When we consider the specific causes of obesity—why a given individual takes in more calories than he puts out—we really know very little.

In experimental animals it has been possible to produce obesity by a variety of different methods, and the resulting types of obesity have differed a great deal from each other. There seems every likelihood that a similar situation may exist in man, and that what we now look upon as a single condition will ultimately prove to consist of a whole series of different conditions. Someday in the future we may look upon obesity as being a condition as nonspecific as fever and we may know as many different causes of obesity as we now know causes of fever.

Despite these speculations obesity remains a condition of unknown origin. This point cannot be emphasized strongly enough. Some very appealing theories consider the origins of obesity to be psychological and that obesity is the bodily manifestation of a neurosis. Despite the vigor with which these theories have been advanced, and the widespread acceptance they have achieved, they are still unproved.

How often is obesity the result of glandular difficulty?

Only a tiny percentage of obese persons has any known glandular abnormality, and in only a small percentage of these persons is the obesity a result of the glandular difficulty.

Can damage to the brain result in obesity?

One of the most fascinating recent developments in the field of experimental obesity has been the demonstration of two pairs of centers in the brain which have profound effects upon the control of food intake. One such pair, the feeding centers, initiates food intake while another pair, the satiety centers, stops food intake. By temporary stimulation of the feeding centers or by inhibition of the satiety centers marked overeating has been produced; permanent destruction of the satiety centers has given rise to massive obesity in such animals as the mouse, the rat, and the monkey. Obesity in man is probably very rarely due to actual destruction of the satiety centers, although occasional cases have been reported which may have arisen in this manner. An increase in the activity of the feeding centers or a decrease in the activity of the satiety centers, which could be brought about by a variety of psychological and chemical influences, however, may well result in overeating. Study of the feeding and satiety centers is one of the most promising areas of research in obesity today.

Following the operation known as frontal lobotomy, which is performed in certain mental patients, there is frequently a marked increase in appetite and in body weight. Damage to other areas of the brain may also have effects upon food intake, but these relations are not well understood.

Is obesity often hereditary?

We have no concrete evidence in man that would settle this point, since most persons receive both their genetic endowment (inherited characteristics) and their upbringing from the same people, their parents. In animals, however, some forms of obesity have been shown to be hereditarily determined, a fact which suggests the possibility of a hereditary predisposition in man.

Why does obesity sometimes seem to "run in the family"?

It not only seems to, it does. In families where neither parent is obese, only 10 per cent of the children are obese. By contrast, when one

parent is obese, 40 per cent of the children are obese, and when both parents are obese, the incidence of obesity in the children is as high as 80 per cent. We don't know why this occurs, and until we have a way of separating the effects of heredity from those of environment, I don't think we will.

Are people in the United States getting heavier?

According to the latest figures, the average weight of women has fallen in the last thirty years whereas the average weight of men has increased. These changes, however, are very slight, amounting to no more than three to four pounds.

Is there any particular economic group in which there are more obese persons than there are in other groups?

In the United States, at least, obesity is strongly linked to socioeconomic class. There is a striking decrease in obesity as one ascends the socioeconomic ladder, and there are far fewer obese persons in the upper classes than in the lower. This point is of importance in understanding the origins of the psychological theories about obesity. Most of these theories were derived from the psychoanalysis or psychotherapy of upper-class persons, predominantly women. This is a small, selected group, and theories derived from it may not apply to the far larger numbers of obese persons in the lower classes.

Are there more obese men than obese women?

No. There are more obese women.

Is there a characteristic gain in weight among middle-aged and aged persons?

Yes. Body weight tends to increase from the age of twenty to the age of sixty. Thereafter, body weight appears to decrease. This decline, however, is difficult to interpret, for it may mean only that the obese members of the population have died off, leaving only the thinner members. There is no evidence that previously obese persons lose weight during old age.

Is this gain due to physical or psychological causes, or both?

We have no scientific evidence about this.

Are there types of obesity related to specific types of mental illness?

A number of authors, particularly in Europe, believe that a particular form of well-proportioned obesity occurs with extraordinary frequency in manic-depressive persons. The obesity of a rare endocrinological disorder, Cushing's syndrome, is often associated with mental illness. Finally, disturbances of consciousness and severe neuroses are common in conditions giving rise to an excess of insulin in the body. Such conditions, notably insulin-secreting tumors of the pancreas or overactivity of the insulin mechanism of the pancreas, very often give rise to overeating and obesity.

Is obesity primarily a physical or a psychological problem?

From one point of view obesity is *both* a physical and a psychological problem; whichever is the more troublesome depends upon the individual. Obesity may seriously aggravate diabetes, high blood pressure, and arthritis, without producing accompanying psychological problems. On the other hand, some persons may suffer serious psychological disturbances related to their obesity without the occurrence of any physical disability. More commonly both physical and psychological problems are present.

As was noted previously, obesity in man may prove to be the end product of a wide variety of causes, as has been shown to be the case in laboratory animals. It is thus entirely conceivable that obesity in some persons may result largely from biochemical or enzymatic disturbances whereas the obesity of other persons may have largely psychological origins.

In our culture, fatness is frowned upon and held up to ridicule and scorn. Is this attitude shared by people all over the world?

Decidedly not. Throughout recorded history and in most of the world today moderate degrees of fatness are not only *not* frowned upon, but are considered desirable.

Have we become more weight-conscious because of a current national emphasis on youthfulness and attractiveness?

The reasons for our current weight-consciousness, which has been termed a national neurosis, are not at all clear. Perhaps the emphasis on youthfulness has played a role. It is hard to see how an emphasis

on attractiveness could lead to a desire for leanness until leanness had been accepted as attractive. In many cultures attractiveness is associated with overweight.

Has the repeated publication of statistics relating overweight to shortened life affected our feeling about fatness?

I believe it has. The current preoccupation with weight reduction correlates very well in time with the publications relating improved health to decreased body weight. The most dramatic of these weight-health studies appeared in the years soon after World War II and showed some apparently beneficial effects of the decreased food intake of the war years.

Does obesity cause poor general health?

Obese persons have a shorter life expectancy than persons of normal weight, they suffer more complications from surgery, and they have two to three times the chance of developing such conditions as diabetes, high blood pressure, and disease of the gall bladder. In addition, the more severe the obesity, the greater the likelihood of such complications. Although it would be tempting to say that the obesity *caused* all these misfortunes, we are really not justified in doing so. It may simply be that the same factors which caused the obesity also caused the other conditions. For persons suffering from two diseases, however, control of obesity has special health benefits: the diabetes of a large number of overweight diabetics can be reduced in severity and sometimes completely controlled by weight reduction; similarly, in many cases weight reduction will lower the blood pressure of persons suffering from high blood pressure.

Is it true that obese people are usually jolly and good-natured? If so, what lies behind this association?

In this day of emphasis on psychosomatic medicine, the usual stereotype of the obese person is that of the frustrated neurotic, not that of the jolly, good-natured fat man of earlier days. It has been my impression that some obese persons still qualify for the old stereotype. In some of these people, the jolly and good-natured quality is a defense against less pleasant emotions, whereas in others it seems to be the real thing.

Why is obesity in a woman so often associated with motherliness, generosity, and sustenance?

I don't know if motherliness, generosity, and sustenance are more common in obese women than in other women, or if the reasons for these qualities are different in the two groups. I have treated obese women who have these motherly qualities and have found that some of these women seem to have a fear of abandonment; they mother others in an attempt to make themselves indispensable and so less likely to be abandoned.

Why do some people associate obesity, in themselves and in others, with prosperity and success?

In times of hardship only the wealthy can afford to be fat. People who have survived poverty may regard obesity as a sign of achievement.

Are some people repelled to a morbid degree by fatness in others? What can obesity mean to these people?

It certainly appears so.

Such people may be overreacting to some unacceptable trait in themselves, which they attribute to obese persons. They may think they see in the obese person signs of unrestrained behavior, sexual misidentification, or grossness and insensitivity.

Why are obese persons such fair game for ridicule? Do fat people represent a scapegoat group in our society?

Fat people do seem to represent a scapegoat group in our society. I do not know why this is so.

Is there something inherently funny in a fat comedian?

Since humor serves definite psychological and cultural functions, there must be reasons for the appeal of a fat comedian in this culture at this time. These reasons are not at all clear.

What is a "compulsive eater"?

The term, "compulsive eating," has been so widely and so unsystematically used that it can mean anything from the bizarre food habits of deteriorated psychotics to the tiny between-meal snacks of the diet-conscious fashion model. Curiously, in all of this semantic chaos, there is a form of eating disturbance that probably merits the term compulsive eating.

A compulsion is usually considered to be an irresistible impulse to perform an irrational act. Such an impulse arises when the person is in intense conflict between two alternative courses of action; it is supposed that the compulsion decreases the conflict temporarily by discharging the energy behind one of the courses of action. Just this sequence of events seems to occur in some obese persons who periodically explode into severe eating binges that are followed by spells of bitter remorse.

When the term, compulsive eating, is restricted to this kind of seriously disturbed behavior, compulsive eaters are found to represent a very small fraction of the obese population. Paradoxically, however, compulsive eating is not an uncommon finding in the history of persons suffering from *anorexia nervosa*, a severe neurotic inhibition of eating that leads to emaciation. A sizable number of *anorexia nervosa* patients were probably at one time overweight persons suffering from compulsive eating.

Why is it that food is often chosen as a substitute for other satisfactions?

Overeating is frequently attributed to an obese person's choosing food as a substitute for other gratifications. In explaining this mechanism, it is frequently said that other instinctual drives, such as hostility or sexuality, can be readily displaced onto the eating drive. The trouble with this explanation is that it may be superfluous—the mechanism itself may not exist.

The bulk of the evidence consists of reports of patients in psychotherapy, and numerous alternative explanations of the facts are possible. The systematic studies which can be applied to this thesis have shown contradictory results. Some studies of sensory deprivation indicate that men deprived of other forms of satisfaction tend to eat more, a finding compatible with the notion that food may serve as a substitute for other satisfactions. Other studies, however, which utilized a more profound form of sensory deprivation, found that it is followed by a decreased food intake.

Do some persons take on the burden of great weight in order to evade the implications of becoming sexually mature individuals?

There is no real evidence for this oft-repeated assertion, and I find it difficult to believe that a person becomes obese in order to evade the implications of mature sexuality. On the other hand, I have treated a

very few obese women who, after losing weight and becoming more attractive, were frightened by the attention they received from men. They began to overeat again and regained the weight they had lost. The question here is the interpretation of the weight gain: was the excessive weight put on in order to evade sexual responsibilities or was it a non-specific result of overeating brought about by what, to them, seemed threatening circumstances? I favor the latter interpretation.

Why do some women become overweight, and remain so, after the birth of a child?

Pregnancy and particularly lactation, with their increased caloric requirements, bring major changes in the regulation of caloric balance. Any factor, therefore, which might tend to disturb the regulation of caloric balance, would be much more likely to do so during such a period of unstable equilibrium. Such factors could be both physiological and psychological. The hormonal changes accompanying pregnancy and lactation may well lead to an increased food intake or decreased activity or both. Similar effects could be produced by the complex psychological adjustments of motherhood. Even a well-adjusted woman in ideal circumstances feels the increased responsibilities, the reduced freedom, the restriction on activities. To an immature mother, often with an immature husband, the birth of a child can be nothing short of catastrophic. If she responds to stress by overeating or underactivity, the result can be an unusually rapid weight gain.

When an overweight person consciously wishes to lose weight, why does it often seem so hard for him to do so?

Psychological investigation has made it abundantly clear that conscious wishes are often pitifully ineffective in controlling strong physiological and psychological needs. The conscious wishes of a great many obese persons are quite ineffectual in controlling the forces leading toward obesity.

Is obesity in a child a sign of robustness?

No. Obese children are probably somewhat less healthy than non-obese children.

Are obese children at a psychological disadvantage in relation to average children?

This depends to some extent on the degree of the obesity. Mild degrees of obesity, with the often associated increase in height, can

sometimes be an advantage, as it is, for example, to the boy who wants to play football. Extreme degrees of obesity, on the other hand, place the child at a serious psychological disadvantage.

What reasons might there be for a mother to overfeed her child to the point of obesity?

There may be a number of reasons, ranging from the relatively benign to the more malignant. An example of the former is simple ignorance expressed in the idea that "a fat baby is a healthy baby." Mothers who overfeed their children for such reasons can often be favorably influenced by educational measures. Some mothers, on the other hand, may persist in overfeeding their children despite the most convincing arguments against it. Such women seem to be motivated more by personal views of their children's size and food intake, views which usually are neurotically determined.

Is an attractive, immature mother ever responsible for obesity in an adolescent daughter whom she fears as a pretty, younger competitor?

I have heard psychiatrists speculate on such reasons for obesity, but I have never known an obese person in whom I felt that such issues had played a significant part in the obesity.

Does a particular kind of family relationship exist in families that have obese children?

Hilde Bruch, an authority in the field, has described a particular kind of family relationship which she believes occurs with above-average frequency in families with obese children. The family situation consists of an overprotective mother who discourages physical activity and encourages eating by the child, together with an ineffectual father who plays an unimportant role in the family.

Are there adolescents who become obese and remain so in order to disappoint or humiliate their parents?

We do not know why people become obese, therefore we cannot definitely exclude any motive, but I believe that the desire to disappoint or humiliate parents is not a primary cause of becoming obese. On the other hand, if an adolescent is already obese, the obesity may be used in a variety of ways to rebel against the parents. The adolescent

would thus derive "secondary gain" from his obesity, but these motives would not be a cause of the obesity.

Do women ever use obesity to avoid marriage and childbearing?

They may, although obese women who avoid marriage and childbearing rarely need to invoke their obesity for this purpose.

Is obesity ever used as an act of hostility toward a marriage partner?

Obesity is a physical condition, not an act, and the failure to go on a weight reduction regimen would be the only way I can see that an obese person could use his obesity as an act of hostility. This would be an uncommon occurrence, I should think.

On the other hand, overeating, or the eating of high-calorie or otherwise forbidden foods, in the presence of the spouse is sometimes used by an obese person as an act of defiance or hostility. The part played in the overall caloric balance by such relatively isolated acts is, however, probably not great.

Can the overweight person solve his problem by himself, through dieting and self-control?

Although there are no reliable figures, it is my impression that a large proportion of cases of successful weight reduction is achieved by individuals without professional supervision and with, at most, the help of a friend or a spouse.

What kinds of treatment are most successful in helping the overweight person to lose weight?

There is only one treatment for obesity—reduction of caloric intake below caloric output for a sufficient period of time. In the overwhelming majority of cases this means dieting. There are various ways of helping obese persons to diet, but this is the basic treatment.

Is there medication that can control the appetite?

Yes. Two chemical groups (the amphetamines and phenmetrazine) are moderately effective appetite suppressants. Tolerance to their effects, however, develops and increasing doses are required to achieve the same result. Accordingly, they are usually effective for only two to three months. Smoking is a moderately effective appetite suppressant to which,

interestingly, tolerance does not seem to develop. There is no evidence that other medications have any effect upon appetite.

Why does it sometimes help the overweight person if he sees his doctor and is weighed at frequent and regular intervals during the course of his dieting?

The support of another person, particularly one to whom the patient may attribute unusual power and benevolence, can be very effective in sustaining him through the often severe trials of a weight-reduction program.

Can hypnotism help a person to lose weight?

Hypnotism, like any other form of treatment, has its share of successes in weight reduction, and its far greater share of failures.

Which of the many special diets and crash diets is the most effective?

None of the recently introduced diets is probably any more effective than any other diet. There is certainly no convincing evidence along these lines. It is true that over a period of time people will tend to eat sparingly of a very monotonous diet, such as a formula diet, a banana diet, or a very high fat diet. Thus, if they stick to the diet they will probably lose weight. Unfortunately, the effective element in the diet—its monotony—makes people less likely to stay on it.

How successful are attempts at dieting?

Strikingly unsuccessful! Published results of outpatient treatment for obesity reveal that only about 25 per cent of obese persons lose 20 pounds in the course of attempts at weight reduction and no more than 5 per cent lose as much as 40 pounds. These figures are found to relate to all forms of weight reduction—medically supervised and medically unsupervised efforts, clinic treatment and private practice, drug treatment and group psychotherapy.

When is hospitalization (with a supervised, intensive diet) recommended?

Such radical treatment is usually indicated only in the presence of obesity associated with life-threatening illnesses such as coronary thrombosis or congestive heart failure. In such situations rapid weight reduction may be lifesaving. Another, far rarer, indication is the presence of obesity so massive as to prevent physical activity.

What is the record of success of this treatment?

Hospitalization with enforced dietary restriction is quite successful in bringing about weight reduction so long as the person remains in the hospital environment. Recurrence of obesity following discharge from the hospital is, however, the usual sequel.

How do psychiatry and psychoanalysis help the obese person to lose weight?

Psychotherapy may help obese persons to lose weight in two ways. Early in treatment, the patient's desire to please his therapist may result in rapid weight loss. This weight is almost always regained. Later in treatment, as the obese person comes to an understanding of some of the factors that have upset him, and learns to handle them effectively, he is less vulnerable to periods of upset associated with overeating. He may then even be able to sustain the rigors of a reducing regimen.

Does the overweight person, as he begins to lose weight, sometimes meet with surprising resistance from friends and relatives?

Such resistance may occur, but it is far more common for the overweight person to encounter genuine pleasure and help. Collaboration between a husband and a wife which began in efforts at weight reduction has sometimes laid the foundation for a greatly improved relation between the two. Occasionally a severely neurotic husband-wife or parent-child relationship is unfavorably altered when the obese person begins to lose weight.

Does the overweight person sometimes serve the neurotic needs of those around him by remaining overweight?

Occasionally. A hypercritical wife may justify her hostility toward her husband by reference to his obesity, and this rationalization may be threatened by his weight reduction. It is my opinion that such situations are rare.

What are some of the ways a person, formerly grossly overweight, reacts to his new figure of normal and pleasant proportions?

The most common reaction is one of pride and satisfaction. The reaction may be of reasonable intensity or it may have a quality of elation. In the latter case, the realization that weight reduction has not

solved all of one's interpersonal difficulties may give rise to serious disillusionment, depression, and regaining of the weight.

When is plastic surgery recommended for the removal of unasimulated skin that remains when a grossly overweight person has reduced his weight to normal proportions?

When large skin folds cause serious cosmetic difficulties, plastic surgery may be of help. Because of the strong tendency of persons to regain weight that they have lost, such surgery should not be considered until there is good reason for believing that the person will be able to stay at his reduced weight. I believe that a minimum of two years should elapse before plastic surgery is considered.

Can such surgery produce any difficult psychological complications for the individual?

If the person has been able to stay at his reduced weight for two years, he is probably in good condition emotionally, and plastic surgery is far more likely to help psychologically than it is to harm.

Does becoming well proportioned, after having been overweight, ever affect the personality of an individual?

For years after they have attained normal weight, some persons who were obese as children may continue to look upon themselves as fat, and even as grotesque and loathsome. Such attitudes seem to have little to do with the person's bodily size and more to do with depressed feelings and lowered self-esteem. It is interesting that such disturbances in the body image are very rare among persons who became obese during adult life.

Do many persons who have taken off excess weight, gain it back?

Most persons regain the surplus weight after a successful weight reduction program. Different studies show that as many as 80 per cent of the people who have reduced their weight, regain it.

What can explain the chronic dieter, who gains and loses and gains and loses, year after year?

The weight losses are a testimony to the desperate efforts of the individual. The weight gains are a testimony to the inadequacy of our treatment.

What can be done by the community, the family, the individual, to prevent obesity?

In the present state of our knowledge, prevention offers the greatest hope of coping with the problem of obesity. The most important time for prevention is childhood, and the most readily available method is the education of parents in the virtues of moderate feeding and adequate exercise for their children. Although such education may well have little impact upon parents whose child rearing practices are too neurotically determined, they might make favorable changes in a large number of relatively normal parents.

Preventive measures of some value for adults are: restriction of the fat content of the diet, efforts not to eat beyond the point of satiation, and as much physical activity as is compatible with the person's way of life.

In conclusion, I would like to note that our failure to control obesity is hardly surprising in view of our extensive ignorance of this subject. If we are to hope for anything more effective than our current fumbling efforts, we must substantially increase our understanding of the basic mechanisms involved. Such understanding can come about only through more research.

PAIN

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Do people need to have pain at all?

Queer as it may seem, a much more reasonable question is why do we need pleasure? Really, the answer is that we need pleasure only because we are built to desire it, whereas we need pain for biological survival. How essential pain is for our protection is dramatically demonstrated in the few people who for one reason or another are "pain blind." Pain blindness happens only rarely, but, in such a case, a child, for instance, may sit on hot water pipes and not know that he himself is burning unless he notices the smell of burning flesh. He may bite his own tongue failing to realize that it is not a piece of food that he has put in his mouth. The survival of such a child depends on his learning to perceive and respond to cues other than pain that tell him things are wrong.

The problems of the "pain-blind" woman who reaches adulthood and has a child teaches us that pain is indispensable for racial as well as for individual survival, for the "pain-blind" mother does not know when her child is being born, and she takes no precautions before or after its birth. It is easy to see that often such children will be lost.

When such babies do survive, there remains the seemingly insolvable problem of the absence of the mother's understanding of the tender care required by a tiny infant. For example, the heat of the water to which a child may be subjected is immediately perceived by a mother from her own pain as she puts her hand into water that is too hot; but without such information, the "pain-blind" mother may subject her offspring to scalding and burns.

Do people use language incorrectly when they use the word "pain" to describe both the sensation that is usually unpleasant (a signal that the cause of the sensation should be avoided), and also the suffering (the intense desire to get rid of the unpleasant situation that the sufferer experiences)?

Nearly always pain is unpleasant and generates an impulse for avoidance, yet not always. There can be pleasant pains, as in scratching an itch, and there can be suffering and the desire for avoidance without the painful sensation.

Actually we are short of words that differentiate pains adequately, and verbal ambiguity makes the understanding of the problem of pain difficult. When one speaks of *organic* or *physical* pain, he generally means that the sensation, pain, is present, that it presumably has a definite external or internal cause, although the actual cause may not be identifiable, and that the avoidance reaction ensues. When one speaks of *psychic* or *mental* pain, he usually means that the need for avoidance is the important feature, that the sensation may be lacking, that the cause is unknown and may indeed lie in the motivations of the personality.

Here we shall speak of *organic* or *physical* pain or *pain* on its own when we are referring to sensations that are painful, of *psychic* or *mental* pain when referring to mental suffering (whatever its cause may be), of *psychogenic* pain when no organic cause for painful sensations is known and there exists circumstantial evidence that psychological factors may be primarily responsible. It is important to remember that the sensation and the suffering usually go together and are aspects of the same event. That is how the ambiguity of the word *pain* has arisen. But these two aspects—the physical and the psychic—may be separated.

Nevertheless, the experience and intensity of suffering of the patient may be the same whichever of these meanings is ascribed to the pain by an outside observer.

In human suffering with any form of pain, the memory of past experience, apprehension about that which is to come, the painful sensations themselves, the meaning and implications ascribed to them, and the reactions one permits oneself are as a rule inextricably interwoven.

Is pain usually unpleasant?

Yes. In fact, the quality of unpleasantness is common to nearly all pains. For example, the pain of frustration, of bereavement, of childbirth, and of a burn are alike in being unpleasant.

Nevertheless, some kinds of pain may be a help and thus become less unpleasant. Let us take two examples. The one is when the mental pain is so intense that the distraction of physical pain comes as an advantage. The other situation is more complicated. We now know that for complete functioning and health, sensory input is necessary. The minimum requirement of sensation varies from person to person and seems to be dependent on certain characteristics of the individual nervous system. If, as a result of the interaction of the environment with the nervous system, sensory input falls below what is called the "sensory subsistence level," the person becomes greedy for sensation of any kind. (See *Sensory Isolation*) Under these circumstances, pain—in the sense of a sensation—fulfills a need of the individual. He may then welcome pain.

What is the special characteristic of the stimulus that causes pain?

All the known stimuli from sense modalities are energy changes of one sort or another (like light or sound). Sensory receptors other than those for pain have been adapted to respond specifically to one type of energy change. The one thing that differentiates pain from the other sensations is that it can be aroused by an excess of stimulation in any of the sense modalities. Although pain presumably has its own specific receptors, they are, so to speak, the "receptors of excess" and have a relatively high threshold. The other receptors respond to exquisitely small energy changes of one sort, that is to say, they have a low threshold (for that particular stimulus).

The stimuli that cause pain are likely to be the ones that, if prolonged, will damage the organism. Thus pain is the warning signal, giving notice that danger for the organism is at hand, or has indeed already arrived.

How is the knowledge of a painful stimulus transmitted to the brain?

Many types of nerve fibers transmit sensory information—the fibers are of different sizes and their pathways vary. Some large fibers appear to transmit impulses with great speed, whereas the small fibers are slower.

Why can pain outlast the stimulus?

It is believed that some of the stimuli resulting in pain cause the release of a pain-producing substance in the vicinity of the nerve end-

ings—for example, in the skin or in the heart muscle. These chemical effects are prolonged after the stimulus has ceased to act.

Are there any areas of the body that are insensitive to stimulation that is usually painful?

Yes. The viscera are insensitive to stimuli that would produce pain in the external body wall. For example, they do not respond to cutting or burning or pricking with a pin. Stretching, however, will produce pain in these parts of the body.

The lungs can be completely destroyed and yet the patient experiences no pain. When pain is felt, in such a situation, one can be fairly certain that the pleura around the lungs is involved.

The brain, too, can be cut without the patient feeling pain.

What are some of the physical changes that take place in the body as a result of painful stimulation?

Blanching (the loss of color in the skin) may result; so may a change in the breathing rate and in the pulse rate. Extreme pain may be accompanied by nausea; sweating is a frequent sign, as is a change in the size of the pupil of the eye. In extreme pain, fainting may occur.

Are these physical changes common to most persons?

Yes, but the stimulus for some people needs to be much greater. People vary enormously in their behavior during trauma, both in the degree with which they seem to suffer and in their physiological signs.

Do people react to pain both physically and mentally?

Yes, they do. The sensation and the suffering so regularly go together that it is hard to separate them. One person may feel a pain more intensely than another because his attention to it is reinforced by psychic events such as worry, and conversely the greater the pain the more intense the worry and the other symptoms of distress.

Can pain ever be so extreme as to cause death?

Yes, but very rarely, and then only when the stimulus is sudden and enormous. Normally this does not occur. More often it is the cause of the pain that eventually leads to death.

Can pain itself cause a physical disease?

No, but the reverse is, of course, true. Physical disease can and does cause pain.

Do particular kinds of pain set up physical and mental reactions that are different from those caused by other kinds of pain?

The physical reaction to pain in the viscera is to flex oneself, as if protecting the vulnerable area with the knees and bending the upper half of the body forward. (This is called the flexor reflex.) Pain in the viscera, unlike pain in the body walls, appears to be diffuse and less sharp but it results in more physical signs such as changes in the pulse rate, blood pressure, pupil size, and sweating.

The mental reaction to pain will depend on the meaning of the pain to the patient. For example, a patient who knows that the pain in his left shoulder may indicate a heart condition will be particularly worried. In contrast, a pain in his left thigh will leave him mentally quite comfortable.

Is pain in a particular area of the body an indication of disease in that area?

Yes and no. If pain occurs in the ear or in the area of the appendix, the likelihood is that there is trouble in the ear or in the area of the appendix. On the other hand, a kidney stone or gallstone can cause pain over a wide area. Sometimes a pain is "referred." For example, when the trouble is on the underside of the diaphragm, the pain is felt in the shoulder.

Typically referred pain from the heart condition known as angina is felt in the left shoulder and the inner surface of the left arm. The explanation usually accepted for this separation of pain from the area which is the center of the trouble is that in the development of the body from the embryonic state, formerly adjacent areas become separated from one another, although the representations of these areas in the central nervous system are still closely related.

Can a baby localize pain?

A baby who has a lesion in his middle ear shows a complete lack of localization of his pain to this area. It would seem that only at the end of his first six months, does a child begin to localize pain. The

localization of pain must alter with the sensory experience of the person as he acquires knowledge of the space both inside and outside of his body.

How do scientists explain the phenomenon of the leg amputee's feeling pain in the toe of his severed leg?

This pain is centrally felt at another point in the distribution of the nerve running down the stump of the leg: that is to say, the message coming back to the brain on the nerve that used to go to the toe no longer specifies correctly where the trouble is. Later, if a new body image (minus the missing part of the leg) is formed, this false localization may disappear.

Is the ability to localize pain in the viscera inborn or learned?

Many authorities think that the accuracy of localization of a visceral pain depends on what the person who feels the pain has learned about localization, just as infants have to learn to localize the sensations from their skins. Most people, however, have only inaccurate knowledge of the arrangement of their insides and their localizations may be vague or quite wrong. Besides, there are certain peculiar relations of the nerves, relations that are formed in the embryo, that fix false localizations, such as pain in the shoulder accompanying some heart ailments.

Can physical pain be emotionally caused?

Yes. What will often characterize "psychogenic pain" is that it is experienced in an area thought by the patient to be a functional unit. He will, for example, report occurrence of pain, or, on the other hand, the loss of all sensation in his whole foot, as if the nervous innervation of the foot corresponded to a sock. The foot and leg are, however, supplied by a number of nerves. It would not be possible to have pain in the whole foot without nerves that affect parts of the leg also being involved.

The emotional background of such "psychogenic pain" is in no way specific. A bus driver who, after an accident did not wish to drive any more and yet needed to support his family, might develop such foot symptoms as a temporary solution to his conflict.

In primitive societies, it is the emotionally caused pain that is often so successfully treated by the "medicine men" and their equivalents.

Will the same emotion repeatedly stimulate pain in the same areas of the body?

If a person has an area that is susceptible to pain, such as a tendency to migraine, then his anger may cause his migraine to reappear. Moreover, when a patient has a pain "focus" due to some injury, for example, a scar from an ulcer that has healed, in time of stress the pain may be reactivated.

What is meant by the "pain threshold"?

It should mean the intensity at which a person subjected to painful stimulation (heat or pressure) on the average first feels pain. The term is, however, loosely used to describe the ability of people to tolerate pain over a period of time, that is to say, the level of pain that they can endure.

Are there many people who do not feel pain?

There are a few persons recorded in the literature who were pain blind. In addition, it has been estimated that about 5 per cent of the population has very low sensitivity. Recent work at the Harvard Medical School suggests that approximately one-third of the population are, under ordinary conditions, of the perceptual type called "reducers"—the persons for whom continued sensory intensity gets less in both perception and in recall. These "reducers" may differ from the "augmentors," another third of the population, by as much as 50 per cent of the measure of intensity after stimulation has continued for a time.

Are individual differences in sensitivity to pain reflections of differences in general sensitivity to sensory stimulation?

Yes. Sensitivity to size and to weight, for example, are correlated with sensitivity to pain. Thus, at Harvard Medical School it has been shown that, during a period as brief as three minutes, a wooden block held in the hand will be subjectively perceived as halved in size by the good tolerator of pain—the "reducer"—and as doubled in size by the poor tolerator of pain—the "augmentor." There is now evidence that similar phenomena occur in the perceived weight of objects: indeed, that there is a generalized tendency for the "reducer" to diminish the perception of all stimulation and for the "augmentor" to enlarge it—two contrasting processes manifesting themselves in different personality types.

Are individual differences in sensitivity to pain inherited or are they a result of differences in learning experiences?

It would seem from the experimental evidence to date that differences in sensitivity are partly inherited and partly acquired: that is to say, you start out with a particular pattern and then the environment can either enable you to live at peace with your particular pattern or force you to deviate from it. For example, a particularly sensitive individual who is subjected to a heavy sensory assault might develop special ways of adjusting to the bombardment.

In an investigation at Harvard Medical School it has been shown that "augmentors" who were constrained to listen to loud noise began to "reduce"; there is now suggestive evidence that resorting to such "defensive reducing" may become the chronic habit of some people.

Do individual differences in sensitivity to pain seem to be relatively stable from time to time?

Yes. Under similar circumstances, two people, one of whom is very sensitive to pain and the other insensitive, continue to differ in this way. There are, however, certain means by which the tolerance of the sensitive person can be increased. One "pain killer" commonly used to this end is aspirin and there are other ways in which sensitivity to pain can be temporarily diminished.

Is extreme fear of pain a sign of physical or mental weakness?

No. We have now come to see that people's experiences of pain resulting from the same cause differ widely. Those who experience a great deal of pain are apprehensive of future pain. We know that the burnt child dreads fire. What the difference in apprehensiveness may mean is that a badly burnt child dreads fire more than a child who has been scarcely burned at all.

Bravery in the face of pain may arise from two very different histories. One history may be that of the man who has experienced little pain, who is particularly insensitive, and therefore cannot imagine that the threatening situation is going to be difficult to take. The other personal history may be one in which the man, although he has experienced a great deal of pain and suffering, has nevertheless discovered that long-term goals are so important that he can work toward his goals and bear the suffering.

Do men differ from women in their tolerance of pain?

That is a complicated question. First, because in our culture women are allowed—even encouraged—to fuss quite a lot about physical discomfort, they tend to use this right. The cultural mores have thus interfered with our obtaining a clear impression of differences in tolerance that may exist between men and women.

Secondly, moderate “habituation” to pain can be built up by inducing slight pain that precedes a somewhat greater pain. The menstrual period of the female and the experience of childbirth tend to accustom her, in contrast to the male, to experiencing some pain as a regular part of life.

Recent research has demonstrated that underlying these divergent forms of behavior in men and women, there is some contrast in the manner in which the two sexes “process” the sensory environment, with the result that the actual experience of the painful sensations is somewhat different.

Why are some women more sensitive than others to pain during their menstrual period?

It is thought that this sensitivity (which is restricted to certain areas such as the breast and the lower abdomen) is in part due to the softening of the tissues as a result of their greater water content during the menstrual period. For this reason, a given amount of pressure causes greater discomfort at this time.

How reliable is a person's own opinion about his ability to withstand pain? When he says, “I stand pain very well!” is this usually an accurate assessment?

No. The fact is that the more intense the pain experience, the more does the subject feel that his control is immense provided he does not “hit the ceiling.” He might then say that he stands pain very well, when he really means, “I control myself extremely well, even though the pain is very intense.”

Are people who are highly sensitive to pain likely to have more severe disease?

No. Such evidence as we have indicates that people who are sensitive to pain go to their doctors earlier to find out what is the matter.

Susceptibility to disease, however, is not measured by the number of visits to the doctor.

Is fear of pain related to man's fear of death?

It is better to keep fear of death separate in one's thinking from fear of pain. Many people who do not fear pain are very much afraid of death, and vice versa. There is some evidence that fear of death may be more intense in people who are insensitive to pain.

Has mental pain any function?

A man pursues his aims and goals at least in part because of the mental pain that he experiences when he has not yet reached these goals. A mother tends and succors her baby at least in part because of her own suffering when the baby is distressed. It is difficult to conceive of man "acting justly and loving mercy" if unfair and cruel actions never caused him mental pain.

Can pain be stimulated in one person by sympathy for another's pain?

Certainly mental pain can be thus stimulated. If it could not, we would have additional troubles, for the child who cannot protect himself needs the sympathetic concern of the adult to safeguard him from damaging experiences. The survival of any social group depends, moreover, on concern for the pain of another.

The closer two people are to one another, the more likely it is that this kind of mental pain will be intense and might even be projected to the bodily region in which the loved one is experiencing physical pain. An example of this is the concern of the father during and just before the birth of a child to his wife. In some primitive societies, the father is put to bed and cared for as though he were having the baby (a practice referred to as the "couvade").

Can one be so involved in an emotion that severe infliction of pain is not felt?

Yes. Soldiers may be unaware of their injuries. A hypnotized person can have his leg amputated without other anesthetic and feel no pain, because his attention is directed away from the pain. If you burn both hands at once, you will feel the pain in one, but hardly in both. One pain kills the other. Pain can disappear during extreme preoccupation with something else.

Why is it that love of family or country, religious beliefs, one's sense of duty, or motives such as desire for power, fame, or beauty, can be so strong as to overpower or eliminate one's fear of pain?

How long a man can stand either pain or the fear of pain is dependent on his sensitivity to pain, on the strength of the emotion binding him to his country or family, or on the firmness of his principles—one might say his character. The “set” of the individual (the range of his immediate concern) fixes his breaking point: that is to say, if a man is experiencing a very strong emotion, he can become relatively unaware of sensations that are not related to it. Some of the saints and martyrs must have been more consumed by what they believed than by the fire that burned them.

Why is it that fear of pain initiates action that one might never consider otherwise, like the betrayal of one's country or family under fear of torture?

Everyone has a breaking point. It is well to remember that a man or woman may have very high ideals, yet be extremely sensitive to pain. For such a person the breaking point might come earlier than in someone who is less sensitive, even though he may not care very much about what he is defending.

What techniques have been used to diminish suffering from pain?

First, there are drugs ranging all the way from alcohol, which historically was the first “anesthetic” used, to heroin, which is a prohibited drug in the United States. Secondly, there are “counter-irritants”—heat pads, cold pads, and most recently “white noise” played into the ear (audio-analgesia). Thirdly, there is “habituation” to pain by starting with small doses and then increasing. (For example, pinching the skin before giving a hypodermic injection.) Fourthly, there is reassurance and comfort from another person or reassurance and comfort from oneself because of one's understanding and control of the situation causing the pain. The mother's behavior toward her hurt child is an example of the former, and some aspects of the mother's training in “natural childbirth” constitute an example of the latter.

Recently, adrenalin injected into the cerebrospinal fluid has been used for the relief of such pain as does not respond to other treatments. Such an injection in a dog will prevent physical response to those hurts that normally cause pain. A strong emotion can interfere with per-

ception of pain perhaps because in intense anger or fear, adrenalin is released into the bloodstream.

Is it possible for a mother to lessen her child's fear of pain by making visits to the doctor or dentist a pleasant excursion?

Yes. She can do a great deal by associating the visit to the dentist or doctor with as many pleasant things as possible. Ivan Pavlov showed that by such an association you can even bring an animal to enjoy a painful experience.

Does it help to be told how long the pain will last?

Although pain is perceived as if it were endless, the fact that pain is to end at a certain time is a very helpful piece of knowledge to the patient. Experimental evidence suggests that pain is cumulative in its effects, and that pain stretched out in time is especially hard to take.

Does the attitude of the patient to the doctor influence the experience of pain?

Trust and admiration of the physician contribute to the patient's certainty that his doctor will do only what is absolutely necessary and that he will do it in the best possible way. Therefore, that portion of fear of pain which is composed of the patient's apprehension is greatly reduced. As the patient becomes relaxed, he may also become more cooperative and helpful, which helps the doctor to be technically more efficient.

Can the perception of pain be interfered with by other incoming perceptions?

Yes, indeed. This is the background against which hot and cold compresses are used, or in former times, the mustard plaster on the back or abdomen. Perceptual changes occur with concomitant sound, heat, cold, or touch, and affect the way in which the intensity of pain impinges on the individual. In some cases, the patient is changed by the other sensory input so that the pain is perceived as less intense.

Can exercise be useful as a treatment for pain?

The treatment of certain types of pain by exercise is extremely effective. For example, muscle spasms are greatly reduced when the area involved is subjected to regular exercise, thereby diminishing the pain due to the spasms. In addition, we now have evidence that

sensations other than pain that arise in the exercised area may help to lessen pain. For example, riding a bicycle provides proprioceptive and muscular sensations from the hip joints that may "drown" the discomfort previously registered, as well as preventing muscle spasm.

What is "natural childbirth"?

This is a name given to childbirth that is prepared for by careful instruction (of the expectant mother) in the most proficient ways for her to behave. The preparation includes some forms of exercise to strengthen the proper muscles, and acquainting the mother with certain movements and positions so that they will not be strange to her or a strain on her. In addition, she is reassured by a straightforward explanation of the birth process, one that strips it of mystification insofar as the physical aspects are concerned; and a good relationship with the physician or midwife who will be present at the delivery is carefully built up.

All these preparations contribute to the mother's relaxed, serene feeling while she awaits the birth. Since she knows what part she is going to play, she concentrates on doing it as well as she can, an attitude that also contributes to her ability to cope successfully with the event. The baby is often born while the mother is fully conscious; since she is minimally aware, as a result of all these factors, of serious discomfort, she does not demand analgesics.

The Russians have developed a method called "painless childbirth," which is now also used on the continent of Europe. This method does not differ fundamentally from the "natural childbirth" method that was developed by the English physician Grantley Dick Read, although in the Russian version the conditioned reflex and Pavlovian ideas are stressed more than in the explanations provided for natural childbirth.

What influence do distractions, such as soothing music at the dentist's and lollipops at the doctor's, have on the severity of a painful experience?

An arresting "distraction" can be very effective in alleviating suffering from pain. The process may sometimes be a substitution of another sensory modality for the pain. Just as cold or heat or a mustard plaster can interfere with the intensity of strong pain, so can lighter distractions like music diminish a lesser pain. Another factor is that a relaxed mental attitude induced by music (or a lollipop) diminishes the apprehension and fear.

Does pain, after being interrupted, sometimes stop?

Sometimes this appears to happen. It may be that the interruption reduces the tension and contraction of certain muscles that help to maintain these unpleasant sensations.

In addition, it would seem that a brief gap stops a vicious cycle in the peripheral or central nervous system. The successful alleviation of pain by interruption is well known in the early phases of the condition known as *causalgia* (a burning sensation resulting from injury to a peripheral nerve).

May aspirin be used effectively in the relief of pain?

Yes. Aspirin causes a change in sense perception and that can reduce pain.

Can one build up resistance to narcotics or aspirin so as to nullify their effectiveness?

Yes. A narcotic may be needed in larger and larger amounts for it to wipe out the perception of pain. A stage could arise at which the dose of narcotic required to relieve the suffering from pain is so large that it would be lethal. Under these circumstances a "safe" amount of narcotic would no longer be effective in relieving the pain.

As far as we know, this need to increase the dosage which accompanies the use of narcotics does not occur with aspirin. On the other hand, aspirin can cause severe and harmful physical effects, such as intestinal bleeding. Moreover, some people are allergic to aspirin, and the face and adjacent areas may swell to a dangerous extent when they use this drug.

Are drugs that relieve pain equally effective with all people?

No. Fortunately, drugs like aspirin are most effective in altering the pain of those people who are maximally sensitive to pain. Indeed, the change induced by aspirin in those most sensitive to pain is so great that it has misled some others into the error of assuming that its effect would be the same on everyone. That is not true.

Are tranquilizers effectively used in the relief of pain?

Some experimental evidence indicates that tranquilizers do not in themselves relieve suffering from pain in the manner in which aspirin, alcohol, and probably narcotics do. Tranquilizers are effectively used in combination with some of these other drugs to "relax" the patient.

Can certain drugs be habit forming or lead to addiction?

Narcotics can indeed be habit forming and lead to addiction in the sense that the physiological functioning of the body ceases to take place in its normal way without the help of the narcotic to which one has become accustomed. Many scientists believe that when enough of any drug is consumed, the person can become addicted. We know by the enormous degree of alcoholism in the United States, for example, that some people can easily become addicted to alcohol, but the dangers of addiction are by far the greatest with the use of narcotics.

Can drugs produce changes in the body that in turn may produce pain?

Yes, indeed. After a man has become addicted to a narcotic drug, there are severe symptoms when it is withdrawn. Such symptoms, which include cramps and nausea, can be extremely painful, and the patient's "withdrawal symptoms" give indications of his great suffering.

What has been the success of general surgery in the relief of pain?

If the exact cause of the pain is known and is surgically removable, the result can be the complete obliteration of any unpleasant sensation. When pain is due to such a cause as gallstones, kidney stones, obstruction of the alimentary tract, an inflamed appendix, an ulcer, or an abscess in a tooth, the surgical treatment can make the individual as free from suffering with pain as he had been before the condition began. There are conditions, of course, in which the precise cause of the pain is unknown. Surgery may then be helpful in ascertaining what is wrong.

Why is the brain operation, known as prefrontal lobotomy, used for the relief of pain?

A patient with an incurable condition (for example, a late stage of cancer) may have a great deal of pain, which is relieved with increasing quantities of morphine—to the point at which an increase in the dose would be fatal. Some other means is then sought to relieve his suffering. One treatment occasionally used is the surgery of the prefrontal areas of the brain, an operation that is known as prefrontal lobotomy. The real difference—and it is a very important one—between this surgery and that of the type we have just discussed as "general surgery" is that the individual is changed rather than that the pain or its source has been altered. It is as though you treated a bad odor by

permanently destroying the sense of smell in the person who dislikes the odor. This kind of operation causes many other changes in the personality in addition to the decrease of suffering from pain. That is why most physicians do not recommend such treatment unless there is no hope of the individual's life being prolonged beyond a few months. Some physicians would not turn to the usual prefrontal operation even under these circumstances because the effects on the individual personality are so drastic that he becomes almost another person after the operation has been carried out. (See *Psychosurgery*) Recent experiments—using a series of circumscribed lesions performed under X ray—are, however, reported to cause minimal changes in the personality and reduce the suffering with pain.

Is electric shock used to relieve pain?

In cancer of the neck, electric shock is reported to be helpful. Such treatment appears to prevent the cumulative effect of the pain; it is as though the pain were broken up in time, thus preventing a "snowballing" effect. It may be that electric shock acts similarly, although less drastically, to the brain operations performed for the relief of suffering.

What is intractable pain?

This is the term used to describe the pain that does not respond readily to any of the usual forms of treatment. It can be due to any of a number of causes and may be present in any part of the body. Many of the ingenious procedures used in surgery for pain have been devised to relieve this condition. The longer this type of pain endures, however insignificant the original lesion may be, the greater is the spread of its effects and the more firmly do these effects become established. Long enduring pain of this type can have very disintegrative consequences for the personality and has, indeed, been described as the "pain malady."

What has been the success of religious convictions, faith healers, and Christian Science in relieving suffering with physical and mental pain?

The success has been very great. At least in part, the effectiveness is based on the fact, discussed elsewhere, that, if the "set" of the individual is strong enough and his emotions are intense enough, he can become less responsive to pain and other perceptions that he would like to avoid. Alleviation of suffering can be achieved by these special approaches, whether the pain is of organic or psychogenic origin.

How is hypnosis used in the relief of pain?

A hypnotized subject can be persuaded to register perceptions other than those being caused by his environment, and similarly he can also be persuaded to fail to register perceptions. These perceptions may consist of painful sensations.

A cooperative patient is required for hypnosis to achieve its purpose; it seems that one out of five persons are "good" hypnotic subjects in the sense that they can be relieved of relatively minor pain of short duration (like the pain caused by lancing a boil). There are some patients upon whom major surgery has been successfully carried out under hypnosis. When all the required criteria are met, the method is thought by many experts to have much to recommend it. There is, however, a great deal of uncertainty about the manner in which hypnosis achieves this effect. (See *Hypnosis*)

What has been the success of psychiatry and psychoanalysis in the treatment of pain?

When pain is due to "mental" causes or to tension caused by a mental state, the success of psychiatry and psychoanalysis has been—and can be—very considerable. Indeed, once it is clear that the pain is of this type, it is much better for the patient that it should be handled nonorganically. For example, if potent drugs are used for this kind of pain, and its real cause is left untouched, there is every likelihood that the symptom will continue and that the patient may become physiologically addicted to the drug used.

In addition, we must note that prolonged impact of any painful symptom, whether it be of so-called psychogenic or organic origin, can cause permanent physical changes. Moreover, when pain of moderate intensity is prolonged and seems to have become untreatable, a person is likely to adapt the rest of his activities—as well as his human environment—to his pain, which then becomes like an old friend who has joined the family circle and is very difficult to turn out. (In spite of being a nuisance he belongs and may even be much missed if a parting is achieved.) The psychoanalytic view is that painful symptoms may be neurotically cherished because of the attention, sympathy, and relief from responsibility they engender. The analysts call this "the secondary gain" from retaining a neurotic symptom.

When pain is due to a psychosomatic or even an organic condition, psychiatry and psychoanalysis can be of real assistance in altering the internal and external stresses that exacerbate it. A good example of the

relief of such a psychosomatic condition is the manner in which suffering from migraine headaches can be mitigated when the patient is helped by these methods. Advanced cancer is widely accepted as an organic condition, yet even here the therapist can help in altering the patient's reaction to the total environmental stress, which includes his illness.

It is well to remember, when considering the potential contributions of psychiatry and psychoanalysis to the alleviation of pain, that the terms *organic pain* and *psychogenic pain* may not indicate differences in the experience of the patient, nor do they assert anything about the cause of the pain, whether it lies in the sense organs for pain or in the past motivational life of the personality. These terms merely show the judgment of an outside observer as to what he knows about the character of the patient's suffering.

Do psychoanalysts have some special views in regard to certain kinds of pain or to pain in general?

Yes. For example, they think that the symptoms of so-called hysterical conversion, which may be painful, can be successfully treated by psychoanalysis. During the course of the analysis the pain will be temporarily replaced by the anxiety that originally motivated the formation of the painful symptom.

Psychoanalytic theory also describes self-punitive behavior, found in both children and adults, which may be due to unconscious guilt. Self-punitive tendencies sometimes manifest themselves at the time of achievement of a long-sought goal—a period which, in the lives of other people, leads to a joyful sense of fulfillment. The “self-punitive” person may, however, in order to relieve the conflict caused by his imagined “undeserved success,” suffer from mental pain and indulge in physical or mental acts of self-punishment that are unconsciously motivated.

An interesting notion put forward by the analyst Thomas S. Szasz suggests that medicine as a profession can be viewed as a socially structured defense against pain, much as religion—among other things—is a socially structured defense against anxiety.

Is there any pain so intense that it cannot be relieved?

Yes. Sometimes the intensity of a pain that fails to respond adequately to any treatment may necessitate greater and greater doses of a narcotic to keep the suffering minimal. The point may then be reached when the narcotic dose can no longer be increased without the

risk of ending the life of the patient. Death does sometimes follow the increased use of a narcotic under these circumstances. Such considerations raise the controversial social and religious problems of the permissibility of voluntarily ending life, the sanctity of the individual life, and the safeguards society can substitute for the absolute laws that, under our present civilized codes, preclude the ending of life.

Can the memory of a painful experience cause a phobia (fear of dogs, water, etc.)?

Yes, it can, according to the more general use of the term phobia. Psychoanalysts, however, consider the situation associated with the phobia—such as dogs or water—as not frightening in itself, but as a symbol that has come to represent some inner fear of the patient. (See *Phobia*)

Do mentally ill people have different physical or mental reactions to pain than do other people?

Yes, they do. Some chronic schizophrenic patients have the most dramatically different reactions in that they seem extraordinarily tolerant of pain.

Can pain cause a mental illness?

Pain due to organic causes does not result in mental illness. It may be responsible for the patient's choosing suicide because he finds life so unbearable. But all that is known about the frame of mind of people who take this step suggests that they are in no sense "mentally deranged," but that they have thought about the alternatives with a clear mind.

Melancholia (the depressed side of manic-depressive psychosis) and the other illnesses classified as depressions are, of course, accompanied by psychic suffering, but here the psychic pain may be thought of as an important part of the picture of the mental illness rather than one of its causes.

What is a sadist?

The word has come to be used loosely to describe a person who appears to enjoy being cruel or who displays a compulsive tendency to vent aggression or destructiveness upon another person. The form this attitude takes may be the exploitation or humiliation of another person without inflicting physical hurt.

Strictly, however, the term designates a form of perversion in which the infliction of pain on another is associated with sexual satisfaction. Psychoanalytic theory traces certain sadistic tendencies (which are defined as a fusion of libidinous and aggressive instinctual drives) to infantile fantasies or traumatic experiences originating in the early childhood phases of sexual development.

What is a masochist?

In general use the word indicates a person who appears to derive satisfaction from being mistreated, offended, embarrassed, scolded, etc.—or one who appears to court such treatment. When the term is used strictly, it designates a perversion in which sexual excitement and satisfaction are derived from being subjected to pain—whether it is self-inflicted or inflicted by another person.

Psychoanalytically the word is used to describe someone whose sadistic tendencies are turned inward upon himself.

Is it possible to have a combination of sadistic and masochistic traits?

Yes, it is, both in the strict and more general sense of these two terms—and the word “sadomasochism” has been coined to describe the condition when both tendencies are present. Psychoanalytically, the term describes a state in which sadistic tendencies may on some occasions be directed outward, and on others inward.

Do most individuals exhibit these traits to a slight degree?

Yes, most of us do.

Should pain always be relieved?

No. In the case, for example, of acute appendicitis, if the pain were relieved, the diagnosis might be completely missed. The dangers of always relieving pain are emphasized by the problems of diagnosis and treatment in persons addicted to alcohol. The symptoms of an abscessed tooth or an inflamed sinus can be hidden by alcohol and often are concealed in an alcoholic through the analgesic effect of the alcohol he has been drinking. Should the abscess then spread into the brain, it becomes too late to help the patient back to health. Similarly, alcoholics may fail to be irritated by foreign bodies lodged in their bronchi until more serious effects occur—perhaps an abscess.

There is, moreover, the danger that if pain were always mitigated by

the use of drugs, a patient could become accustomed to larger and larger doses so that he would be more likely to become addicted. It is also true that a man who never feels pain, because it is immediately relieved when it appears, comes to be afraid of even slight pains and their implications.

Illness that is completely free of pain presents its own problems; often a patient finds himself unable to pursue treatment because he is not reminded of the reason for this inconvenience. Thus, it is difficult to keep tuberculosis patients from ending their treatment because they have no pain to warn them of what the X-ray and sputum tests are recording as danger signals, and euphoria sometimes accompanies their illness.

One social result of the pain that is borne for any of the aforementioned reasons is that it contributes to a person's understanding, sympathy, and helpfulness toward other people who are suffering and in pain.

On the other hand, one needs to remember that pain left too long untreated may spread and set up a vicious cycle in the peripheral or central nervous system. Once this stage is reached, the body's periphery may be treated without alleviating the pain.

PARANOIA

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"Of all the causes which conspire to blind
Man's erring judgment, and misguide the mind,
What the weak head with strongest bias rules,
Is pride—the never-failing vice of fools."

Alexander Pope—*Essay on Criticism*

What is paranoia?

In the strict sense (barring certain extremely rare exceptions) there is no distinct mental disease called paranoia. This word, as generally used, is a psychiatric term that signifies a characteristic combination of mental symptoms, often seen in many different types of mental and emotional disorders. There are two essential elements in the paranoid reactions or syndromes—first, unrealistic feelings of self-overevaluation, grandeur, or grandiosity, and second, unrealistic and irrational feelings of persecution. The word "paranoia" is derived from two Greek roots, *para* which means "beside," in the sense of altered or changed, and *noia*, meaning intellect or reason. The word, then, literally implies a "mind beside itself."

We see paranoid reactions developing under stress in people who are basically egocentric and conceited, but at the same time possess some innate feelings of inferiority, which they are psychologically incapable of facing realistically. Instead they tend to overcompensate for the inferior feelings by developing a sense of superiority in one sphere or another. When the external world does not accept this overevaluation of themselves, they conclude that it is because of jealousy. When their plans and aspirations continue to be thwarted by a "jealous" and unsympathetic world, they conclude that they are being persecuted, i.e., that there are malicious forces working against them, trying to harm them. In this frame of mind paranoiacs exaggerate, misinterpret, distort, and attach undue significance to everyday remarks and happenings, and in their minds use these as items of evidence to bolster their belief in the "machinations" against them.

As mentioned previously, paranoid reactions are frequently seen as part of the abnormal manifestations in many different forms of psychiatric disorders. Thus, just as fever may appear as a symptom in many different types of infectious diseases, namely, tuberculosis, pneumonia, measles, and scarlet fever—all due to different noxious agents—so paranoid reactions may appear in the course of diverse types of mental disorders whether due to so-called “functional” or “organic” causes. Thus, paranoid reactions are often seen in cases of schizophrenia, in epileptic psychosis, and at times also in cases of manic-depressive psychosis. They occur as a result of disturbed circulation to the brain which may be due to hardening of the arteries, high blood pressure, or heart failure; they are frequently seen in senile psychosis; they may occur as a result of endocrine, vitamin, or metabolic deficiencies, as in cases of myxedema, pernicious anemia, or pellagra; they may occur as a result of drug or medicinal intoxications (where there has been excessively prolonged usage, overdosage, or where an individual has special susceptibility to certain drugs), as from bromides, digitalis, and in recent years particularly, excessive usage of reducing pills of the amphetamine type. In short, virtually any type of serious mental dysfunction may manifest itself to some degree by paranoid reactions. However, in virtually all cases where chronic paranoid reactions develop, one can find an underlying personality structure that psychiatrists feel is the predisposing soil in which it can appear.

What are the causes of paranoia?

Invariably chronic paranoid reactions are seen to have appeared in individuals who have an exaggerated picture of their self-importance, of what they are, or at least of what they think they should be. In tracing these attitudes we see that they usually reflect the views and attitudes of at least one of their parents or parent-surrogates. Surveys have shown that they come from distrust-provoking backgrounds, where the parents are unstable, cruel, and punitive; or highly moralistic and demanding; or indulging and pampering (thereby impressing the child that he is something special and warrants special privileges). Thus they will have been raised in an atmosphere permeated by manifestations of intolerance, bigotry, self-righteousness, and carping, critical attitudes. Their families will have been aloof and disinterested in neighborly contacts and community affairs, and will have explained their withdrawal by impugning the character, ethics, morals, and motives of people who are active in these spheres. They are prone quickly to con-

demn and decry in others faults they themselves possess and of which they are completely unaware. The parent will have set up excessively high achievement goals for the child, and have tended to deprecate and minimize whatever he did accomplish. At the same time, the child's failures will not have been attributed to lack of ability or application, or even poor fortune, but to "unfair" teachers, and to manifestations of "favoritism" for others who may have important "connections." These same individuals will, of course, assiduously seek and utilize for themselves any "connections" they think may give their child an advantage over others. The child will have been taught to view the world as hostile, competitive, full of schemers, and beset with pitfalls for the naïve and unwary.

Thus it is evident that the child who is likely to develop into an adult paranoid personality has invariably been reared in a setting where he has been exposed to strong influences and exemplifications of a paranoid parental figure or figures.

Other prominent character traits seen in paranoid personalities and in their antecedents have been delineated by Sigmund Freud as the anal-erotic character triad. These consist of: *orderliness*, being also expressed in preoccupations with physical cleanliness, meticulousness, scrupulosity in little things; *economical, frugal, hoarding tendencies*, which tend to become exaggerated into avariciousness and miserliness; *obstinacy*, which can progress to spitefulness, vindictiveness, and tendencies for violent and vengeful acts.

Coming from such a background, the future paranoid individual has generally displayed character traits that have made it difficult for him to get along with a group as a child. He is often a lonely, unhappy, brooding, insecure youngster, lacking the ability to make close friends or to participate in congenial play with others for any extended period. He is inclined to be suspicious, stubborn, secretive, obstinate, and resentful of discipline. When crossed he is likely to be sullen, morose, peevish, and irritable. As he matures into adolescence and early adulthood, these personality characteristics become accentuated. The person becomes increasingly sensitive about the attitude and behavior of others, "builds mountains out of molehills," and readily believes that others wish to do him injury. He lacks a sense of humor, becomes readily offended at well-meant jests, is egotistic, self-righteous, self-assertive, sarcastic, derogatory, querulous, embittered, and resentful. Characteristically, he has become argumentative, uncompromising, and aggressive. As a result relationships with other people readily become

strained. He approaches others with a "chip on the shoulder" attitude. The drive for achievement may be intense and impel him to seek goals that are well beyond his capacity. Intolerant of criticism and unable to accept suggestions, he readily criticizes and belittles others. Meticulous and precise, he is in some respects highly efficient, but because of his jealousy and inflexibility, he is prone to get into difficulties in situations where he needs to work harmoniously with others. He is driven to demonstrate his superiority and in a position of authority is very likely to become a petty tyrant.

Frequently, one encounters persons handicapped by such paranoid personality characteristics which, however, never develop further. In others these characteristics become gradually and insidiously intensified until the person is clearly psychotic. That is to say, he has lost substantially, and for an extended period, the ability to counterbalance his misinterpretations of things, events, and other people's motives with a realistic, objective evaluation of them. In the same problems and factors are to be found the sources of both the paranoid personality and the paranoid psychosis. The latter consists of a progressive, developing continuance of the former.

In many (but by no means all) paranoid individuals there are seen indications of incomplete development in the psychosexual sphere. This is likely to be seen in the male who has been excessively under the influence of a dominating and pampering mother, who has encouraged the child's narcissistic tendencies. These individuals remain more or less sexually unsophisticated and find it difficult to develop normal adult heterosexual interests. As they become aware of this deficiency, they begin to wonder about their sexual capacity and tend to shun sexual experiences. They may have a secret fear that they are inclined to be homosexual. When such individuals develop psychotic states, much of their thought content is filled with sexual material, their persecutory delusions reflecting these fears.

How does paranoia differ from schizophrenia and manic-depressive psychosis?

The group of mental illnesses categorized as the schizophrenias are a more advanced form of mental disturbance than the pure paranoid state. While the paranoid state shows a disturbance of the individual's appreciation of reality in that he misinterprets, overemphasizes, and is hypersensitive to real events, in the schizophrenias there are additional abnormal mental phenomena consisting of hallucinations and ideas of

reference. Thus, while the pure paranoiac concludes from what has happened to him that people are against him or are persecuting him, the schizophrenic actually hears imaginary voices that threaten him, call him names, or warn him of dangers. In the pure paranoiac the delusions or false ideas that the patient develops tend to be more or less logical, while the more schizophrenic a patient is, the more illogical and fantastic the delusions become. The pure paranoiac tends to control his thoughts and thus his discussions stay "on a track" much better than the schizophrenic. The pure paranoiac's emotional reactions while not strictly consistent as compared to those of a mentally normal individual, are much more likely to be in accord with his thought content than those of the schizophrenic. Thus, the pure paranoiac may become very angry in discussing his persecutors, while the schizophrenic, who may declaim more loudly, at the same time may obviously express less concern and even indifference about the persecutions. To a lay person the pure paranoiac may appear quite normal in ordinary conversation, while the twisted thinking, feeling, and bizarre expressions of the schizophrenic usually are apparent to any intelligent observer. The true paranoiac, although he believes his false ideas just as intensely, is less likely to react impulsively, foolishly, and with disregard for legal or social restrictions than the schizophrenic. So paranoid states may be distinguished from schizophrenias of the paranoid type in that there is much less distortion of reality in the former; there are no hallucinatory experiences; there is little disorganization of thought and the emotional reactions are more congruent in relation to the thought content. (See *Schizophrenia*)

What are manic-depressive psychoses?

Manic-depressive psychoses are disturbed mental states in which the chief abnormality lies in the spheres of the emotional reactions. The patients may show states of elation and mental overactivity, or states of depression, melancholia, and mental underactivity, or mixtures of both, or alternating cycles of both. In the elated or manic phases of manic-depressive psychosis, patients may express grandiose ideas, but these are only an expression of their emotional exuberance, and are accompanied by other signs of mental hyperactivity. Also these grandiose ideas only last as long as the elated emotional state persists. In the true paranoiac, the grandiose ideas persist, regardless of the patient's emotional state. In the depressive phase of manic-depressive psychosis, the patients may express ideas of persecution or bad, dire events

that are in store for them, but these are reflections of their own feelings of guilt and unworthiness. These patients feel that bad things will happen to them because they deserve them or because they have made mistakes or done things for which they themselves are responsible. In the true paranoiac the ideas of persecution and of doom are attributed to malign outside influences. The mechanism of projection is at the basis of the delusions. Their enemies are evil people in themselves who are jealous of the patient. The paranoiac does not consider himself evil as the depressive individual does. Also the persecutory delusional ideas seen in the depressive, only last as long as the depressive mood lasts, while in the paranoiac, the persecutory ideas are much more persistent. (See *Manic-Depressive Psychosis*)

What are the symptoms and manifestations of paranoia? At what age can they first be detected?

When an individual, who has developed the hypersensitive and hypercritical character traits herein described as the paranoid personality, is exposed to extended stresses, disappointments, or frustrations, and particularly when the outlook for overcoming these obstacles seems hopeless, his psychological aberrations are likely to become aggravated to the point where a psychotic state is manifest. That is, he loses the ability to distinguish between what is really going on in the world about him and the false concepts and misinterpretations his hopes or fears have conjured up in his mind. The psychotic states are manifested by the presence of delusions of grandeur or persecution or both in an individual whose intellectual functions are unimpaired in all other respects, and whose appearance, carriage, dress, and behavior patterns (except insofar as they reflect reactions to the delusions) are not visibly abnormal. Thus they can carry on their usual daily routine, think clearly, follow their occupations, and behave circumspectly in most situations. In cases where the initiating stresses or frustrations are temporary the psychotic paranoid reactions may also be transitory; but in instances where there is underlying a permanent dissatisfaction with one's role in life, a chronic, unremitting form of paranoia is much more likely.

The primary symptom of paranoia is the presence of delusions or false beliefs. In the "pure" paranoias these delusions are not supported or reinforced by false perceptions or hallucinations (hearing voices, seeing or feeling things that are not there), which are the hallmark of the full-blown schizophrenic reaction.

Psychiatrists sometimes divide the more usual paranoid psychoses into four subtypes depending on the predominance of pertinent groups of symptoms. These are listed as the persecutory, exalted (or grandiose), litigious, and erotic forms.

In the *persecutory* forms the patient is likely to be sullen and resentful, as he attributes hostile or aggressive motives to others. He nurses his grievances and becomes increasingly secretive. In the earlier stages his chronic dissatisfaction may express itself in general feelings of uneasiness and hypochondriacal preoccupations (excessive worries about his physical health, vague fears of undiagnosed dire disease, concern about bowel functions, and exaggerated attention to any temporary minor physical disorder). Misunderstandings and misinterpretations readily develop into delusions of persecution. Arthur P. Noyes and Lawrence C. Kolb cite a case which well illustrates the tendency of the paranoiac to seek for ulterior motives on the part of others and to misinterpret events. A woman, who soon after her graduation from a law school (whose faculty had awarded her the annual prize for the greatest improvement in scholastic work during her professional course), sued the school for damages alleging that the awarding of such a prize was for the purpose of representing her as having been more poorly fitted than her associates for the study of law. Other commonly expressed persecutory ideas are: Paranoiacs see hidden meanings in the everyday events going on around them; cryptic significances are read into casual remarks and happenings; slights and indignities are imagined; far-reaching significance is attached to trivial details in the behavior of others; the food being served them has been tampered with; people spread lies about them; their mail is being intercepted, spied upon, delayed, or otherwise interfered with; hostility and jealousy are detected on every hand and manifested by other people's gestures and facial expressions; their business and career plans are being thwarted; or they are the victims of a conspiracy and the agents of malevolent groups are pursuing them.

In persecutory as well as other forms of paranoia, there is a main delusional theme that pervades the whole life of the person and renders him quite incapable of criticizing the false and bizarre "logic" he uses in supporting this dominant idea. His premises are not properly evaluated and present events, regardless of their relevancy to the prevailing idea, are interpreted chiefly with reference to them. Frequently, incidents of the past also receive a new interpretation and thus are fitted into the complex of the present persecutory pattern.

In the *exalted* type of paranoia the ideas of grandeur may appear only after a long preceding stage of persecution, or at times the grandiosity may be present practically from the beginning of the psychosis. The paranoiac's ideas of invention frequently take on manifestations of grandiosity. Patients with such ideas are likely to neglect their usual means of livelihood and devote excessive time to the development and perfection of their usually impractical "inventions." At times the patient claims that his model is perfected but that he is prevented from securing a patent or from marketing his invention by the machinations of his enemies or the influence of the monopolistic corporations. Other exalted paranoiacs become imbued with the ideas that they are the repositories of inspiration or revelation in religious, artistic, philosophic, or political-economic fields. They aspire to create and lead "new" movements. Often individuals who have such "missions" and pursue them implacably, impractically, and unrealistically to the great detriment of their own, their families', and society's needs, are found on examination to be suffering from paranoid psychoses.

The *litigious* type of paranoiac is not frequently found but is likely to cause a disproportionate amount of social disturbance because of the nature of his drives and preoccupations. This type of individual always is very stubborn and insists upon his "rights." Usually the litigious activities will first appear after some legal experience that did not turn out exactly as he had desired. Because of his dissatisfaction, the patient resumes and pursues repeatedly further ill-advised legal action. He always fails to see that he has not proved his case, and is prone to explain his continued defeat by impugning the integrity of his own lawyers, the judges, expert witnesses, in fact, anyone who does not see eye to eye with him on the issues. Every new litigation brings further controversies and new grievances for which the patient feels impelled to seek redress. He frequently switches lawyers until he reaches the point where no sensible attorney will handle his case. Basically, it appears that it is not an extreme sense of "justice" and "right" that motivates these patients, since on issues where they themselves are not involved they will readily accept and not dispute "unjust" awards to others. They will not go on "crusades" where injustices to other individuals or groups are involved. The patient's need basically is to prove that he is always and completely right, that others are wrong, and that, therefore, he is superior.

The *erotic* types of paranoia are those in which a person develops the belief that some woman of title, wealth, or glamour whom he may have

seen or met casually is in love with him. He writes her affectionate letters and perhaps poems. Her failure to reply to them is intended solely to test his love. Items in the newspapers, the flight of the birds, and various publicized events are disguised indications of her reciprocal interest and acknowledgments of her love. Female patients also are likely to develop erotic delusional formations in relation to heroic, glamorous, or wealthy male figures. Such erotic paranoid pictures are likely to be found in individuals who have always been excessively inhibited sexually, and who have been insecure in their self-images of their sexual attractiveness and desirability. Often they will feel that the attachment they detect between themselves and their love object is on a spiritual and platonic basis and not to be equated at all with sordid sensual love.

It is felt that these abnormal mental states develop in susceptible individuals only after they have been exposed to a considerable number of life's stresses, buffets of fate, frustrations and disappointments, and they are beginning to lose hope of substantially achieving any realistic goals that have been set for them or which they have set for themselves. These circumstances usually have not been sufficient to cause a breakdown, at least until the third decade of life. As life proceeds and more stresses are piled up, the incidence of breakdowns increases. Some individuals will begin to show abnormal mental states at the beginning of the menopausal decline. Many more people who previously have had only the paranoid personality will begin to show psychotic paranoid states when the physical changes of senility and arteriosclerosis are added to their previous circumstances.

What is the incidence of paranoia?

Pure paranoia of a marked degree is not a very common mental disorder. Paranoid personalities showing the characteristics previously described are quite common. The more obvious paranoid individuals who come to the attention of public authorities or psychiatrists are likely to be schizophrenics. Undoubtedly many of the egocentrics, cranks, litigious, overcritical, and oversuspicious individuals encountered in everyday life are at least borderline cases of paranoid psychosis. These individuals rarely come to the attention of psychiatrists. Until comprehensive statistical surveys are made of all elements in a social community, it is virtually impossible to give an accurate estimate of the amount of actual incidence of significant paranoid states.

Is paranoia more common among women vs. men? Single vs. married people? Urban vs. rural environments? Specific socioeconomic groups?

Women vs. men: Although all the textbooks of psychiatry generally state that paranoia is more common among men than among women, more recent studies tend to indicate that this is not true. In rustic communities the paranoid males are more likely to come to the attention of public authorities. In our present industrialized society, undoubtedly many more paranoid cases among women are being picked up. The current feeling is that there is no significant difference in the incidence of paranoid conditions in women as contrasted to men.

Single vs. married people: Undoubtedly paranoid states are more common in single people than in married ones. This is understandable because of at least two factors: (1) the common psychosexual immaturity seen in the paranoid personality makes it difficult for them to find marital partners; and (2) the fact that their chronic hostility and anger make them undesirable as partners. If the paranoiac does marry, the marital life is so full of discord that it frequently ends in divorce.

Urban vs. rural: Because paranoid individuals are suspicious and distrustful of others, they prefer to dwell in an environment where they will be less in contact with others. The more paranoid individual would, if he were able, seek residence in a suburb or rural environment. On the other hand, the individual who finds it economically necessary to live in close urban surroundings is more likely to be forced into relationship with other individuals and neighbors, who could be sources of friction. Thus the city-dwelling paranoiac comes to the attention of the authorities more often. In short, the physical environment is not so much a factor in the development of the disease as it is a factor in determining whether it will become publicly manifest.

Specific socioeconomic groups: Paranoid psychotic reactions are more likely to occur among people of higher levels of intelligence. Consequently it is more likely to be a disease of those socioeconomic groups where a higher level of intelligence is to be expected. Despite this, specific types of paranoia do occur in all socioeconomic groups.

Is extreme jealousy considered a paranoid reaction?

Jealousy based on reasonable assumptions is not considered a paranoid reaction. However, jealousy that develops from unreasonable suspiciousness and misinterprets, magnifies, or distorts events to support its beliefs, belongs in the psychotic category. Delusional jealousy has been described as not merely an exaggeration of normal jealousy; it is

fixed in its character, it excludes all contradictory evidence, and it includes the most trivial and confirming evidence. Invariably delusional jealousy develops as a projection mechanism in the individual who is beset with doubts of his own sexual competence. It is frequently seen in alcoholic individuals who, while they satisfy their latent homosexual affinities in the companionship of the bar, evade in the alcoholic state satisfying the sexual needs of their mates. This may be construed as the projection of their own fears or disinclinations for heterosexual activity. Norman Cameron has given an especially interesting description of a case of delusional jealousy:

"A thirty-nine-year-old lawyer was convinced that he was the victim of a conspiracy between his wife and her physician. Instead of going to the family doctor, as she always had, she insisted, in her second pregnancy, upon going to an obstetrician. This man was not only a friend of her family but also a member of the same minority group to which she belonged and to which her husband did not. His jealousy became marked as his wife continued to praise the doctor. She seemed pleased with the frequency and regularity of her visits to him, whereas her husband felt she might have more appropriately objected. After the baby was born, he received a bill far smaller than he had expected. This made him certain that his wife had been unfaithful to him. He thought the baby looked like a little foreigner: it must be the obstetrician's and not his own.

"The personal background of this case makes it more intelligible, though no less psychotic. The patient was the chronically insecure son of parents who were passionately devoted to appearances, conformity, and status—apparently as a reaction to their own humble beginnings. Against their wishes, he married the daughter of immigrants, in spite of the fact that he himself disliked and looked down upon her family and friends. It was actually his own attitude that excluded him from this large and close-knit group, and intellectually he knew it. Nevertheless, he always blamed his feeling of exclusion on them. His wife's choice of obstetrician seemed to him just one more close relationship—too close—that left him out.

"The patient had entered marriage with serious misgivings about his own potency and an expectation that a great deal would be demanded of him. It also came out rather late in therapy that he had had an extra-marital affair during his wife's second pregnancy, partly as a spite reaction to what he had imagined she and the obstetrician were doing, and partly to reassure himself. His affair, which involved a good deal

of pregenital activity, made him feel exceedingly guilty, self-depreciatory, and fearful of discovery. It was evidently this factor that had reinforced the patient's suspicions and projections, and had prepared him for his final delusional reconstruction of reality."

Does the individual who experiences "paranoiac delusions of grandeur" ever achieve fame as a result of the motivation of his delusions?

The paranoiac (who has delusions of grandeur) may achieve notoriety, but never lasting fame. Some individuals will go down in history as famous or infamous because their paranoid conceptions were accepted by vast groups of their followers to the ultimate detriment of society. In this sense one may consider the achievements of such paranoiacs as Adolf Hitler, Benito Mussolini, and more recently Fidel Castro, as temporarily successful. In ancient times many of the more notorious Roman rulers, such as Nero, Caligula, and Messalina, were undoubtedly paranoid. It is true that occasionally some philosophers will achieve fame, not because of but despite their paranoid disorders. Friedrich Nietzsche would fall into this category, but by and large worthwhile, constructive contributions to society cannot be expected from psychotic paranoid individuals.

What does the term "folie à deux" mean?

Folie à deux means "insanity" in twos. In 1860 a French psychiatrist, J. P. Baillarger, reported that on the same day two members of the same family suffering from similar delusions were admitted to a hospital. These are psychotic reactions developing in two persons who are emotionally very closely associated. The typical setup is one in which a dominant psychotic person provokes a delusional development in a relatively dependent submissive one. The dependent one usually recovers within a few months after the two have been separated. Paranoid reactions and paranoid schizophrenia are the usual psychoses reported in cases of *folie à deux* and the majority of the delusions are persecutory. In most cases the pairs are individuals who have been living together in intimate contact for a long time. Alexander Galnick recently reported 103 pairs, involving 109 combinations (sometimes multiple relationships), such as: two sisters, 40; husband and wife, 26; mother and child, 24; two brothers, 11; brother and sister, 6; father and child, 2. It is generally agreed that women are more likely to be involved in *folie à deux* because of their usual social roles, inasmuch as they are obliged to play a restricted and submissive part,

with narrowed opportunities in educational, business, and social fields.

What are the current methods of treatment? What is the aim of treatment? Can paranoia be cured?

Where paranoia is found in its pure form, that is, not as a manifestation of schizophrenia, manic-depressive psychosis, or secondary to some form of organic psychosis, it is extremely difficult to treat. The paranoid individual may tactfully be persuaded that other people interpret the world and his position in it differently than he does, and that he should permit them their point of view, just as the sympathetic psychiatrist is willing to listen to the patient's point of view.

Although the patient's convictions about his false beliefs are not likely to be shaken by this reasoning process, his hypersensitivity and readiness to be affronted can be lessened to a considerable extent if he can be persuaded to take tranquilizing medication, particularly of the phenothiazine type. The treatment of the paranoid schizophrenics and manic-depressive cases which have paranoid elements depends, of course, on the treatment of the more basic mental disease. Currently quite good results are obtainable in the majority of cases of the schizophrenias by the use of phenothiazine tranquilizers assisted in some cases by electroshock, and at rare times, insulin shock therapy. In the manic-depressive cases with paranoid features successful results can often be obtained by the use of antidepressant medication and electroshock therapy. Psychotherapy is considered helpful by most psychiatrists, but is not in itself curative in these conditions.

Can paranoia be prevented?

As discussed previously paranoid conditions are insidious processes that have their origin in our society in the earliest familial background and in conditions of rearing individuals. Only when our society is perfected, and presumably perfect methods of child training, education, and development are achieved, would we expect any significant reduction in the occurrence of paranoid illnesses. This would presuppose the actual establishment of a Utopian society in which the optimum conditions of rearing and education, as well as the optimum physical conditions, can be determined and implemented. Aiming for such a goal must be a long-term project involving present as well as future generations. For the present the prevention of paranoia must be considered to rest first, in discouraging the propagation of paranoid individuals' offspring; second, insofar as practical, removing the developing

child from the influence of, or at least mitigating the influence of, paranoid parents by introducing as much as possible other educational influences; and third, by using and expanding current methods of treating overt psychotic states with suitable means of pharmacal therapy, electrotherapy, and psychotherapy.

PARAPSYCHOLOGY AND THE OCCULT

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What is parapsychology?

Parapsychology [*para* (beside, beyond) + psychology] is a branch of psychology that systematically investigates apparently supernormal or paranormal phenomena such as thought transference (telepathy), the ability to perceive hidden objects (clairvoyance), foretelling the future (precognition), and movement of objects without contact (telekinesis or psychokinesis)—effects that do not seem to be explainable by known physical principles. Psychical research is the older and broader term for the study of these effects, and is still in use today. Parapsychology, however, implies a quantitative and experimental approach to the problem, while psychical research may also concern itself with the qualitative analysis of spontaneous paranormal phenomena, mediumship, etc.

What is extrasensory perception?

The term “extrasensory perception” (E.S.P.) came into general use in the early 1930’s as a result of J. B. Rhine’s work. It is defined as the “awareness of, or response to, an external event or influence not apprehended by sensory means.” Many parapsychologists, however, now prefer to use *psi* (twenty-third letter of the Greek alphabet) as a term for psychical phenomena in general. Psi implies no theory (as does extrasensory perception) and conveniently covers the mental phenomena such as telepathy, clairvoyance, and precognition, as well as the more debatable physical phenomena such as poltergeists (literally translated from the German as “noisy ghosts”), movement of objects without contact, etc.

What is telepathy?

The term "telepathy" [*tele* (far off) + *pathy* (feeling)] was coined at the turn of the century by the English classical scholar and psychical researcher, Frederic W. H. Myers, and was defined by him as "the communication of impressions of any kind from one mind to another, independently of the recognized channels of sense." Parapsychologists today, however, define telepathy in more modern terms as "extra-sensory perception of the mental activities of another person (as distinguished from clairvoyant knowledge of objective events)."

A typical spontaneous telepathic experience was reported by a registered nurse who was jolted out of a sound sleep by hearing her name called distinctly, "Margaret! Margaret!" She got out of bed and checked the time, then went back to bed "thinking over the strangeness of the situation." At breakfast she told several of her colleagues about her experience. Later in the day she received a telegram informing her of the sudden and totally unexpected death of her eight-year-old niece, to whom she was especially devoted. The child had died at the exact moment the nurse had heard her name called, and the parents verified in writing that in her last moments the little girl had cried out, "Margaret! Margaret!" One of the nurse's colleagues, to whom she had mentioned her experience soon after it occurred, also submitted a corroborative statement.

Many thousands of spontaneous cases, some of them well documented, have been published, and while few parapsychologists would claim that they *prove* the reality of psi, the general feeling is that they provide valuable supportive evidence. J. B. Rhine and J. G. Pratt came to the conclusion that "it is a significant fact that each of the types of psi phenomena (telepathy, clairvoyance, and precognition) that have been observed and identified in the spontaneous case collections has now been demonstrated experimentally. Thus a mutual order of testimony from case study and experiment has resulted."

What is clairvoyance?

Clairvoyance [*clair* (clear) + *voir* (to see)] was conceived of by the early researchers as the faculty of visually perceiving scenes or events that occur at a considerable distance from the perceiver. Modern parapsychologists avoid the inference, however, that anything analogous to "seeing" is necessarily involved and define clairvoyance as "extra-sensory perception of objective events as distinguished from telepathic cognition of the mental activities of another person."

A striking and well-corroborated case of spontaneous clairvoyance was reported by the American psychologist, William James: Early Monday morning, October 31, 1898, a young woman left her home in Enfield, N.H., and was last seen by several people as she walked toward Shaker Bridge. A search was organized and more than a hundred men hunted the woods and lake shore in the vicinity of the bridge. This being of no avail, a diver worked in the lake all of Tuesday and up to Wednesday noon. No trace of the missing girl was found. On Wednesday night a Mr. Titus, who lived about four miles from the missing girl's home, was aroused by his sleeping wife's screams. Talking in her sleep, Mrs. Titus described the exact spot under the timberwork of Shaker Bridge where the body would be found. "You will find her lying head in, and you will only be able to see one of her rubbers projecting from the timberwork." On Thursday Mrs. Titus accompanied the diver to the bridge and pointed out the spot where she claimed the body lay. The diver said he had searched there the day before and found nothing. Mrs. Titus insisted, and to humor her the diver went down, and came up shortly thereafter with the body in his arms. He said that the brush and debris were so thick that all he could feel was the rubber-clad foot projecting from the timberwork. James analyzed and rejected several "normal" explanations and concluded that the Titus case was "a decidedly solid document in favor of the admission of a supernormal faculty of seership."

What is precognition?

Precognition (also referred to as foreknowledge, prophecy, premonition, etc.) is the paranormal response to an event that has not as yet occurred and that could not be rationally inferred from existing data. As in the case of telepathy and clairvoyance, precognition may occur spontaneously (especially in dreams) or in the experimental situation.

To cite briefly a dream case: An English Quaker, an "ardent opponent of betting and gambling" and not interested in racing, awakened early one Derby Day morning and recalled a dream in which he heard, as if announced over the radio, the names of the first four horses to finish the coming race. Later in the morning he told his neighbor the details of his dream and asked him to note the result of the race. In the afternoon the Quaker listened to a radio broadcast of the race, and "when the race was proceeding, I heard the identical expressions and

names as in the dream." The percipient's neighbor provided written corroboration.

What is psychokinesis?

From the earliest days, psychical research has dealt with the alleged movement of objects not due to any known physical energy or force, occurring sometimes spontaneously, but more often semi-experimentally in the proximity of certain persons thought to be "mediums." (See Carl Jung's experiences in the answer to the question, "What relationship does parapsychology have to psychotherapy?") This effect was called "telekinesis" (distance + movement). Since the concept of distance is not always relevant, the modern term is psychokinesis (P.K.), "the direct influence exerted on a physical system by a subject without any known intermediate physical energy or instrumentation."

The P.K. hypothesis has been tested quantitatively at the Duke University Parapsychology Laboratory and elsewhere by means of dice-throwing experiments in which the subject "wills" that tumbling dice should come to rest with certain specified faces uppermost. Some of these results are difficult to account for in terms of chance-coincidence or faulty design of the experiments and lend strong support to the reality of the P.K. effect.

Poltergeist manifestations—meaningless loud noises, tossing about and breakage of china and household objects, etc.—are of interest to parapsychologists and if not explainable by natural causes, fraud, or malobservation, would be considered as due to P.K.

The Herrmann Poltergeist Case, which took place in Seaford, Long Island, during February and March of 1958, was investigated by representatives of the Parapsychology Laboratory of Duke University and the American Society for Psychical Research. The American Society for Psychical Research came to the conclusion that the Seaford phenomena, "although providing an opportunity for an almost 'on-the-spot' investigation, did not seem to provide the basis for a clear-cut decision regarding the presence or absence of parapsychological manifestation."

What is "déjà vu"?

This term [*déjà* (already, since) + *vu* (seen)] refers to the sense of instant familiarity associated with a current scene and the feeling of having "lived through" the same sequence of events in an identical

manner at some time in the past. This may be a perfectly normal spontaneous experience or it may occur as a result of an irritation of a part of the brain (the temporal lobe). It is not generally regarded as a paranormal occurrence.

What is the history of parapsychology and who were the prominent people instrumental in launching the study?

The belief in psi—in some sort of non-sensory mode of communication with an unseen world—stretches back into remote antiquity. The Bible is filled with examples of what we would today call psi phenomena. Aristotle, Plato, and Cicero were concerned with “divination.” Primitive medicine men the world over claim prowess in telepathy, clairvoyance, and prophecy. Lucien Lévy-Bruhl described instances of what appeared to be telepathy and clairvoyance among various widely separated tribal groups. Andrew Lang pointed out that in legend and popular belief, in stories of witches, fairies, etc., among peoples of all ages and civilizations, there is much that closely parallels modern forms of psychical phenomena, and that, the results being similar, the causes are probably also similar. John Wesley (British cleric and founder of Methodism) and his family were troubled by a poltergeist and recorded the manifestations in detail. Emanuel Swedenborg described a fire occurring at a distance, and the description was later verified. This greatly impressed Immanuel Kant, who wrote: “Philosophy is often much embarrassed when she encounters certain facts which she dare not doubt, yet will not believe, for fear of ridicule.” Johann Wolfgang von Goethe reported the experience of seeing an apparition of himself.

There was thus a host of witnesses, from all eras and places, to the occurrence of the paranormal, but no organized scientific research until the Society for Psychical Research (S.P.R.) came into existence in London in 1882.

The history of parapsychology as we know it today starts with the founding of the S.P.R. by a group of distinguished scholars from Cambridge University, with Henry Sidgwick, the eminent philosopher, as its first president. The purpose of the society was to investigate impartially the claims of telepathy and clairvoyance, apparitions and haunted houses; to study hypnotism and so-called mesmeric trance; to inquire into various physical phenomena commonly called “spiritualistic”—in short, to push forward systematic inquiries into all types of alleged paranormal phenomena. After eighty years of scientific en-

deavor, the S.P.R.'s *Proceedings* and also their *Journal* amount to well over a hundred volumes containing a wealth of carefully documented case histories, experimental reports, and discussions of the implications of the data for psychology, psychiatry, philosophy, and related disciplines.

Some of the prominent persons instrumental in launching scientific psychical research in England in the early years were the following: all presidents of the S.P.R., Henry Sidgwick, the Earl of Balfour, Sir William Crookes, Frederic W. H. Myers, Sir Oliver Lodge, Sir William F. Barrett, Charles Richet, Gerald W. Balfour, Mrs. Henry Sidgwick, Andrew Lang, Henri Bergson, Gilbert Murray, Lord Rayleigh, and William McDougall.

The American Society for Psychical Research (A.S.P.R.) was formed as a result of Professor William F. Barrett's visit to this country as an emissary of the S.P.R. William James was a founding member of the A.S.P.R. and remained identified with its work until his death in 1910. Others active in the early work in this country were: Richard Hodgson, James H. Hyslop, Simon Newcomb, Stanley Hall, Nicholas Murray Butler, Josiah Royce, Morton Prince, and Walter Franklin Prince.

Who are the prominent people in the field today? What contributions have they made?

Probably the best known parapsychologist in this country today is J. B. Rhine who, under the sponsorship of William McDougall, founded the Parapsychology Laboratory at Duke University, Durham, N.C., in 1934. Rhine defined the aims of his research into extrasensory perception as twofold: first, "to answer, if possible, by mathematically indisputable evidence the question of its occurrence and its range," and second, "to further its understanding by the discovery of its relationships to other mental processes and to the essential physiological and physical conditions."

There is little doubt that he succeeded in his first aim. In the late 1930's Burton H. Camp, president of the Institute of Mathematical Statistics, released for publication the following statement: "On the statistical side . . . recent mathematical work has established the fact . . . that the statistical analysis is essentially valid. If the Rhine investigation is to be fairly attacked, it must be on other than mathematical grounds." As for his second aim, over the years he and his associates have carried out many experiments to test the effect of variables such as distance, size of stimulus, attitude toward the task, drugs, in-

telligence, etc. The results have been admittedly complicated, controversial, and inconclusive.

Rhine's most significant contributions to the field are: (a) His long and vigorous experimental attack on the problem of differentiating between the various ways in which paranormal phenomena manifest themselves and his insistence on more subtle definitions of these phenomena. (b) His writings, both technical and popular, which have brought the subject matter of parapsychology to the attention of a fairly wide reading public. (*The Journal of Parapsychology*, official publication of the Duke Parapsychology Laboratory, has been published quarterly for over twenty-five years and has carried reports on the research conducted in the psychology departments of more than twenty-five colleges and universities in this country and abroad.) (c) His talent for inspiring enthusiasm for, and competence in, parapsychological research among young undergraduate and graduate students, many of whom are now doing independent work in various parts of the country. (Rhine has probably done more than any other worker in the field to disentangle the label "spooks and spoo" from paranormal phenomena and to make the study of them "respectable.")

The distinguished psychologist, Gardner Murphy, has been identified with psychical research for more than forty years. The range of his interest is far reaching: he is concerned not only with the quantitative research, but also with all the rich qualitative material—the great collections of spontaneous cases in the publications of the S.P.R., mediumship, and the question of survival of bodily death.

Murphy's role in contemporary psychical research is of first importance. He has been active in original experimentation, but it is perhaps as an educator and synthesizer of the data of psychical research, psychology, and philosophy that he has made his greatest contribution. He, too, has been instrumental in interesting many young students in the problems of parapsychology, and among them are a number who are doing valuable work in the field.

A few of the other key workers in the modern era of psychical research in England are: G. N. M. Tyrrell, who carried out pioneer quantitative research with a specially gifted subject, Gertrude Johnson; Whately Carrington, who developed a technique for long-distance telepathy tests using free drawings; S. G. Soal and K. M. Goldney, whose experimental results with Basil Shackleton provide strong evidence for the existence of precognition. Among the English philosophers and psychologists who have made valuable contributions to the

literature of psychical research in recent years are: C. D. Broad, H. H. Price, and R. H. Thouless, all of Cambridge University.

In the United States important research is currently being done by Gertrude R. Schmeidler and J. L. Woodruff, both of The City College of New York; C. B. Nash, Saint Joseph's College, Philadelphia; Karlis Osis, the American Society for Psychical Research, New York; and many other academically qualified persons in various research centers.

Frequent contributions to the literature are made by the philosopher, C. J. Ducasse, Brown University, and by an increasing number of psychiatrists, among them Jan Ehrenwald, Jule Eisenbud, J. A. M. Meerloo, Ian Stevenson, and the writer of this article.

Who are the professionals who work in this field and what are their specialties?

If by "professional" is meant "engaged in an occupation as a means of livelihood," then there are probably not two dozen *professional* parapsychologists in the world today. Almost all of the early work was done as a labor of love by men and women earning their living in other fields. Today some researchers are aided by grants, but very few are able to devote full time to parapsychology.

If, however, "professional" is defined as "having much experience and great skill in an occupation," then all the psychical researchers mentioned previously (and many others) are professional. Their "specialties" have varied widely: psychology (James, McDougall, Murphy, Thouless); philosophy (Sidgwick, Bergson, Broad, Price, Ducasse); physical science (Crookes, Barrett, Lodge, Lord Rayleigh); biology and physiology (Richet, Rhine); classical scholarship (Myers, Murray); statesmanship (Gladstone, Balfour); medicine (Freud, Jung, Morton Prince); and statistics (R. A. Fisher, J. A. Greenwood, T. N. F. Greville). Probably most of the active research workers today are psychologists, physicists, and physicians.

What groups currently are doing research in parapsychology?

In the United States, active research is being carried out in the Parapsychology Laboratory at Duke University, at the A.S.P.R., at the Parapsychology Foundation, Inc. in New York City, and in the departments of psychology of various colleges and universities. In England, the Society for Psychical Research continues its work, and there are research centers in every major European country, including the Soviet Union.

What kind of reception is given to parapsychological findings by the medical profession, psychologists, scientists in general, and laymen?

In 1948 a New York neuropsychiatrist, Russell G. MacRobert, sent questionnaires concerning psi phenomena to 2,500 psychiatrists. He received 723 answers. Slightly more than 30 per cent of those responding said they were familiar with the results of E.S.P. research; 68 per cent felt that the research should be sponsored in academic centers, and about 23 per cent felt that they had personally observed psi among their own patients.

On the other hand, professional psychologists appear to be much less favorably disposed. In 1938 Lucien Warner and C. C. Clark sent questionnaires to 603 members of the American Psychological Association and received 352 replies. Of those replying, 39 per cent approved of the experimental approach to E.S.P., but were skeptical of the scientific value of the work done up to that date. A similar survey carried out by Warner in 1952 yielded essentially similar results and indicated that a large majority of American psychologists do not accept the evidence for E.S.P.

Although no exact data are available, it is probably safe to say that most of the educated laymen in this country have only a smattering of knowledge of the scientific work in this field and very little real interest in it.

Scientists, in general, probably concern themselves only slightly with the findings of parapsychology and tend to hold themselves aloof from them because they are not as yet repeatable and do not seem to fit into the accepted body of scientific knowledge.

Is there a greater incidence of psychic phenomena among men than among women? Among the mentally ill?

As yet there are not available any reliable data bearing on the relationship of spontaneously occurring paranormal phenomena and sex differences, although women seem less reluctant to report on such experiences. Experimental results, however, strongly indicate that psi ability is equally distributed among men and women.

So far, only a few studies have been reported in which E.S.P. tests have been administered to mentally ill patients. The results were either of a chance nature or at best comparable to results obtained in similar tests with normal subjects.

There is no convincing evidence that patients with different types of mental illness show a differential response on E.S.P. testing. Earlier

reports that patients in the depressed phase of manic-depressive psychosis did better than patients in other diagnostic categories have not been confirmed. Betty Humphrey Nicol, who studied the responses of patients before and after shock treatment and found no significant differences in scoring level, suggests the possibility that ability in schizophrenic patients may vary with the state of the illness. This fits in with the clinical experience of the writer of this article, who has noted the more frequent occurrence of telepathy in borderline patients than in patients who were unmistakably psychotic.

Does parapsychology attempt to explain matters of the occult—communication with the dead, apparitions and ghosts, fortune-telling, etc.? Is there any evidence that these things do occur, or are they solely the products of trickery or disordered minds?

All of the phenomena mentioned have been of serious concern to parapsychologists. In the literature there are numerous well-authenticated reports of apparitions appearing coincidentally with the death of a relative or close friend, or years later, repeatedly, as "ghosts." Despite the uncertainty of our modern knowledge concerning the relationship of consciousness to brain function and the intrinsic implausibility of any survival-of-death hypothesis, it has remained the task of psychical research to study such cases, weigh the evidence, and analyze the results. It is true that in these matters trickery, self-delusion, and "crack-pot" ideas abound. The fact remains, however, that a careful study of well-authenticated cases suggests a residue of unexplained phenomena worthy of further investigation:

As an example of an apparition appearing at the moment of death, Gardner Murphy cites a well-documented British case of a Royal Air Force flyer named Jerome Larkin. Larkin was in his barracks room writing a letter when he heard the typically noisy entrance of his friend, Lieutenant David M'Connel, who had taken off on a mission about an hour previously. Wearing regular flight uniform except for a Navy cap, M'Connel entered the room and greeted Larkin boisterously.

"Back so soon?" Larkin asked in surprise.

"Yes, sooner than expected!" M'Connel answered, and walked off in the direction of his own room.

A few hours later, other men in M'Connel's flight returned and reported that M'Connel, wearing a borrowed Navy cap, had been killed. He had crashed at almost the exact moment Larkin had "seen" him.

How do the findings of parapsychology pertain to mental health?

Parapsychology as a new and developing body of knowledge has thus far had little direct effect upon the general field of mental health. The initial efforts of research workers were largely devoted to the task of accumulating, in the laboratory, reliable evidence of the reality of extrasensory perception and related phenomena.

Over the past decade, however, there has been an increasing emphasis on the investigation of the influence of personality factors on psi functioning. The work of Gertrude R. Schmeidler at The City College of New York is of outstanding importance in this connection. She found, for example, that students who believed in the reality of psi (the "sheep") scored higher than those who expressed disbelief (the "goats"). She also discovered that if students were divided into two groups, the well-adjusted and the poorly adjusted, based on an analysis of the responses they gave on the Rorschach test (a psychological test using inkblots), the poorly adjusted subjects scored at approximately the chance level; significant deviations from chance occurred, however, in both the well-adjusted "sheep" and the well-adjusted "goats": the former scored above chance, the latter below.

These studies seem to indicate that those individuals who meet the ordinary tasks of living in an outgoing, flexible, and self-confident manner tend to score better when confronted with a task involving psi, than those who are constrained, introverted, and inhibited.

Rhine and Pratt are quite emphatic in their belief that psi phenomena are to be considered as part of the normal potential of the human being and are no more frequently associated with mental disorder than is any other mental function.

What relationship does parapsychology have to psychotherapy?

The connecting links between parapsychology and psychotherapy have been forged more at a theoretical level than at a practical level. Of the three great names associated with the early history of the psychoanalytic movement (Freud, Jung, and Adler), the first two showed a recurrent preoccupation with the possible implications of psychical phenomena for psychotherapy as well as for a general theory of human personality. Freud, although he never expressed himself unequivocally on the question of telepathy, was, nevertheless, favorably disposed toward a serious consideration of the subject. In several of his papers, he indicated the possible usefulness of the telepathy hypothesis in the analysis of dreams and prophetic utterances.

Some of the situations Freud refers to were called to his attention by others, and some arose out of his own experience with his patients. One such instance from his practice is a case that became famous as "the case of Dr. Forsyth." Shortly after receiving word that a respected colleague, David Forsyth, from the University of London, had called to make an appointment, a patient with whom Freud was working, a Mr. P., in the course of his analytic hour brought up several associations that struck Freud as possibly telepathic. The patient, for example, mentioned the fact that a girl whom he had been seeing called him Mr. Foresight. He also seemed to be aware that Freud's interest had shifted from him and was directed toward someone else. At the end of his analysis of the exchange between the patient and himself, Freud remarked: "We are left once more with a *non liquet* (condition of doubt or uncertainty), but I must confess that here too I feel that the balance is in favor of thought transference."

Freud made the important point that if telepathic communication were indeed a fact, it would be subject to the same laws of unconscious mental activity as information gathered through the normal sensory channels. This would mean that when telepathically perceived material related to painful or unresolved conflict, such material would be apt to emerge into consciousness in a distorted or disguised fashion.

Jung, in a more explicit and systematic way, embraced the findings of parapsychology in his efforts to arrive at a multidimensional view of the human psyche. He regarded certain psychical phenomena as "unconscious autonomic complexes that are being projected."

Jung's interest in the paranormal dated back to his childhood and continued to be an active preoccupation throughout his entire career. As a young man he investigated mediumistic phenomena and had sittings with the famous Austrian medium, Rudi Schneider, and others.

In an article written by his secretary, Aniela Jaffé, shortly before his death, an account is given of several of Jung's personal experiences:

"The first incident involved a heavy walnut table, an heirloom, that split with a crash. The second phenomenon involved a bread knife, stored inside a drawer, that, in some inexplicable manner and with a loud bang, split into four pieces. In both cases Jung and his mother were present. The four parts of the knife are still in his possession."

A resurgence of psychiatrists' interest in paranormal events occurring in psychotherapy has resulted in the closer scrutiny of patients' dreams for possible telepathic content and the study of the conditions under which such dreams occur. Dreams of this type often relate to the

therapist and reveal aspects of his personal life concerning which the patient could have no normally acquired knowledge. An example of this from my own practice is the following dream of a forty-year-old salesman:

"I'm in a hotel room. I was there with a man I represent. . . . I was wrapping up a few of the samples that had been on exhibit and was preparing to leave. Someone gave me, or I took, a chromium soap dish. I held it in my hand. He took it. I was surprised. I asked him, 'Are you a collector, too?' Then I sort of smirked and said knowingly, 'Well, you're building a house.' He blushed. He smirked and kept on smoking his cigar."

The key element in this dream centers about the unusual symbol of a disembodied chromium soap dish and the embarrassment connected with it. Unbeknown to the patient and shortly before his dream occurred, I had been involved in a situation that caused me some embarrassment and that followed the discovery of an unused extra chromium soap dish left by mistake in the basement of my new home, which had just been completed.

Such dreams seem to occur at times in the treatment situation when the problems of the therapist and the patient dovetail. In some instances the therapist has sufficient conviction to introduce the telepathy hypothesis into the treatment situation as another tool for the exploration of the meaning of a dream with possible telepathic content.

Although interest in psi is still limited to a numerically small group of psychiatrists, their writings have met with an increasingly receptive audience as evidence accumulates from other sources, notably laboratory experimentation such as the studies at Duke University and elsewhere, concerning the validity of psi phenomena.

Is faith healing possibly a parapsychological effect?

The belief in "faith healing," miraculous cures, the effect of prayer on disease, etc., is as widespread among ancient and modern cultures as is the belief in telepathy, clairvoyance, and prophecy. For example, the Roman Catholic Church reports on cases of persons at Lourdes and other shrines who are deemed to have been cured of physical disease through the direct intervention of God; and Christian Science publications are filled with accounts of alleged cures of organic illness through the mediation of a "practitioner." In addition, certain spiritualistic mediums often claim to cure disease either through

certain psychic powers of their own or with the help of "discarnate physicians" who communicate through them.

There seems to be little doubt that some people do obtain relief from pain and perhaps even symptomatic cure through unorthodox healing methods; the power of suggestion is usually considered as the most likely explanatory hypothesis. However, some fairly well-documented cases are on record which do not seem to admit of this explanation, and some curious effects with animals make one suspect that something other than suggestion may occasionally be operative. In a well-controlled experiment, for example, conducted at the University of Manitoba in Canada, wounded mice "treated" by a psychic healer recovered more rapidly than untreated mice in a control group. Many parapsychologists think that the P.K. effect may play a part in unorthodox healing, but much more research in this area is needed before any sound conclusions can be reached.

What relationship does parapsychology have to everyday living?

Psi phenomena have little or no direct relationship to everyday living in our own Western culture. This statement would not necessarily be true of certain primitive cultures. Anthropologists have reported on the prevalence of paranormal phenomena among primitive peoples, notably among the Australian aborigines, and the manner in which these effects appear to be facilitated by the ritual practices employed by these tribes. These practices include the magic of the witch doctor, the occurrence of ceremonial trance states, walking on red-hot embers, and other spectacular feats.

A. P. Elkin reports on the reputed power of the aborigine to know what is happening at a distance, even hundreds of miles away:

"A man may be away with his employer on a big stock trip, and will suddenly announce one day that his father is dead, that his wife has given birth to a child, or that there is some trouble in his own country. He is so sure of the facts that he would return at once if he could, and the strange thing is, as these employers ascertained later, the aborigine was quite correct; but how he could have known, they do not understand, for there was no means of communication whatever, and he had been away from his own people for weeks and even months."

A more complete answer to this question would have to be given by analogy. In 1900, if one had asked about the relationship of the theory of relativity to everyday living, the same negative response

would have been elicited. In both instances the response fails to take into account the potential significance of the phenomena concerned. The advances in atomic physics based on the relativity theory have intruded themselves all too realistically into the fabric of our everyday lives. We can only speculate as to how far this analogy would hold for paranormal phenomena. Just as the relativity theory extended man's vision of the universe and his ability to mold it to his own ends, so the findings of parapsychology may provide as dramatic and revolutionary a glimpse into the nature of man and perhaps of all living matter. But until that time is reached, psi will in all likelihood remain relatively removed from everyday life, intruding itself but rarely into the ordinary course of events and even then in an extremely elusive and unpredictable fashion.

What is the overall significance of parapsychological research for the future?

Paranormal effects appear to transcend the limits of time and space as these categories apply to normal events. This fact creates an atmosphere of intrinsic implausibility and leads most of us into one of two general positions: (1) if one doubts the experimental evidence, one feels profoundly skeptical, or (2) if one is favorably influenced by these experiments and by the caliber of the many men and women who have interested themselves in serious parapsychological research, then one finds oneself beset by tantalizing and elusive bits of data and anecdotal accounts of varying evidential value, all of which defy ready explanation based on present ideas of cause and effect.

The likelihood that parapsychology may ultimately force upon us a radical revision of our current scientific outlook has obviously influenced the thinking of philosophers, physicists, biologists, psychologists, anthropologists, mathematicians, and everyone concerned with understanding the nature of man and his place in the universe. There is hardly any area of scientific inquiry that can remain unaffected by what Gardner Murphy refers to as "the challenge of psychical research."

The challenges issuing from the empirical data of parapsychology reach out into numerous areas of scientific inquiry and concern. Is telepathy an archaic mode of communication? Is it a property of all living organisms, limited to higher organisms, or exclusively found at the human level? Is psychokinesis, or the correlation of thought

processes with an external physical effect without any known physical energies being involved, any more or any less mysterious than the correlation that exists between our own thought processes and the control of the physical movements of our bodies? In considering paranormal phenomena are we still dealing with unitary properties of matter in motion (the philosophy of materialism) or do the findings suggest a fundamental duality in nature separating the physical from the nonphysical (the philosophy of idealism)? Is the evidence at hand strong enough to warrant further investigation into the problem of whether or not human personality, or some aspect of it, survives bodily death, at least to the extent of being able to exert upon the living an influence that to date cannot be accounted for by ordinary means? Are the statistical reports upon which much of the evidential value of parapsychological research rests valid or are they artifacts stemming from intrinsic difficulties in the proper randomization of the target material? These questions obviously touch on such basic problems as the relationship of mind to body, the complex and controversial issues associated with the question of the individual's survival of his bodily death, the validity of statistical laws, and a host of other problems all awaiting clarification in the light of future parapsychological research.

PARENTHOOD AND CHILD REARING

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What is child rearing?

Ordinarily, we think of "child rearing" as referring to the specific techniques parents use in trying to train their children. For the student of human behavior, the term is much broader; it must include anything the parent does, whether deliberate or not, that may have an effect on the child's behavior. For example, a young mother watching her baby play, or bathing him, or singing him to sleep, may not think of herself as engaged in child rearing. Yet, current research tells us that seemingly incidental actions of this kind may have importance in determining characteristic patterns of response in the young infant. Therefore, the student of child rearing must interest himself in all aspects of parental behavior and attitudes that can affect the growing child.

What are the sources of current knowledge about parenthood and child rearing?

Although advice about how to bring up children is as old as recorded history, the systematic scientific study of child rearing did not begin until the turn of the twentieth century and really made no substantial progress until stimulated by the provocative observations and ideas of the Viennese psychiatrist, Sigmund Freud. It was Freud who first pointed to the importance of early experience in character formation and to the parent-child relationship as the mechanism through which the outside world could become a part of the child's personality. Many of Freud's ideas have not been borne out by subsequent research; indeed, in some instances the answers have turned out to be the very opposite of the ones he proposed. But one of Freud's great contributions was showing his own and subsequent generations of scientists one important place to look in order that answers might be found. As a result, psychologists, psychiatrists, sociologists, and anthropologists have been busy during the past several decades checking

Freud's ideas against observable facts and, in this process, as well as in the formulation and testing of other hypotheses, arriving at new discoveries and understandings. These newfound facts and understandings constitute our present-day knowledge about parenthood and child rearing. (See *Psychosexual Development in Man*)

What effect do children have on the marital relationship?

Ordinarily we think about parent-child relationships in terms of the influence of the parent on the child. But the child can also have an effect on his parents, and at no time is this impact likely to be greater than at the very beginning of the child's life. Harold Feldman and his co-workers at Cornell University have been studying the behavior and attitudes of married couples before and after the arrival of a first child. In general, they find that childless couples report a higher level of marital satisfaction and talk more with each other about personal feelings and common interests. In contrast, couples with a young child experience fewer stimulating exchanges of ideas, fewer gay times, laugh less, and feel resentful more often. Inasmuch as the couples were matched on age and length of marriage, the differences could not have been due to changes associated with either of these factors. Feldman concludes that the arrival of a child typically brings about a blunting of emotional expression and a lowering of the level of verbal communication between the spouses.

Such findings bring home the fact that the arrival of a first child involves a period of tension and anxiety for the parents. At the same time, the strain is not without its rewards. The couples in Feldman's research, representing all stages of the family cycle, rated the "first year with an infant" as the most satisfying stage in married life, superior even to the stage "before the children arrive." The least satisfying period was when children were "gone from the home," and next to that "having teenagers." Clearly child rearing is replete both with problems and rewards. The wise parent does well to be prepared for the former, and let the latter catch him by surprise. (See *Conception, Pregnancy, and Child-birth*)

What are the effects of mother-child separation?

According to Freud, taking a child away from its mother early in life should have drastic consequences for the child's immediate and subsequent mental health. Research over the past two decades has given some support and clarification to this thesis. Studies by René Spitz in

America, John Bowlby in England, and other researchers on both continents indicate that young children separated from their mothers for prolonged periods after three months of age may show serious and long-lasting reactions of depression, susceptibility to disease, or retarded social and even mental development. Much depends, however, on the mother-child relationship before separation (children having a warm relationship are most severely affected) and on whether the separation also results in cutting the child off from stimulation by his environment. In other words, it is the mother who acts as the principal avenue of contact between the young child and the outside world; it is she who continually captures his attention with sights, sounds, and movements. In the absence of such stimulation, normal development is retarded. If, however, arrangements are made for substituting an equally omnipresent person, as is done in many modern institutions and infant care centers, serious damage can apparently be avoided.

Without such attention, however, undesirable psychological effects can be observed even over short periods of separation, as, for example, when a child is hospitalized. In a carefully controlled study, Dane G. Prugh and his associates at the Children's Medical Center in Boston contrasted the behavior and emotional reactions of children under two types of programs. In the traditional program, visits by parents were limited to two hours per week, and no encouragement was given to the parents to participate in the ward care of the child. In the experimental program parents were permitted to visit daily and accompany the child in all major hospital procedures. Although the average length of stay in the hospital for both groups was only one week, the percentage of children showing emotional disturbance during hospitalization was considerably greater under the traditional regime, and effects were still apparent three months following discharge from the hospital, especially among children under six years of age. As a result of such research findings, most modern hospitals have modified management practices in pediatric wards to include greater guided participation by parents in the ward care of the child. (See *Childhood Emotional Disorders; Child Psychiatry; Sensory Isolation*)

Is breast feeding better than bottle feeding?

Although much has been written about the presumed superiority of breast feeding over bottle feeding for the physical and emotional health of the child, recent research evidence indicates that children can remain well and happy whether fed from breast, bottle, or even directly

from a cup. The important factor seems to be not the source of supply, but the conditions under which the feeding is carried out. If the child is held comfortably, if he is given plenty of time, and if the whole feeding experience is pleasant, the particular technique of feeding is apparently not too important. At the same time, it should be noted that it is usually much easier to assure close bodily contact, warmth, and comfort when a child is breast fed than when he is fed by a bottle or a cup. Also, mother's milk is slightly superior as a nutrient and immunizing agent. For these reasons, a mother who feels comfortable about breast feeding is probably well advised to use this method. If, however, for one reason or another, breast feeding seems undesirable, bottle feeding is entirely satisfactory if carried out under similar conditions of close contact and maternal attention.

Can methods of feeding, weaning, and toilet training affect the child's personality development?

In the late 1920's and early 1930's, American mothers were warned about the importance of "regularity" and "schedules" in the care of infants from birth onward. Everything was to be done by clock and calendar. The worst thing a mother could do was yield to her baby's resistance and pleas, for such giving in would only weaken his character. A decade later, all this was changed. The mother was urged to feed her baby "on demand," and to postpone weaning and toilet training until the child was "ready." Otherwise the child might grow into an inhibited and uncreative adult. Scientific evidence, accumulated mainly subsequent to both of these periods, gives support to neither of the foregoing claims or counsels.

On the whole, there appears to be little research evidence for Freud's contention that the way in which a child is nursed or toilet trained can have profound, lasting effects on his personality development, at least within the range of variation in these practices found in Western society. The most that can be said is that children are more likely to be temporarily upset by weaning if they are taken off the breast or bottle after five or six months of age, if the transition is sudden and severe, or if the mother is indecisive in the way she goes about the task. Also, children who are weaned after six months of age are somewhat more likely to engage in finger sucking and other oral activities than children weaned earlier. These trends are not very strong, however, and there is considerable variation from child to child. Moreover, there is little evidence that the reactions persist or become serious problems in later

life, except when they occur in the context of a generally disturbed parent-child relationship. For these reasons, most well-informed authorities advise mothers to avoid doctrinaire solutions and to carry out feeding and training procedures in the manner most congenial to their own situation and the characteristics of their child.

How does parental treatment affect the child's personality?

The impact of parental behavior on children is seen most clearly in its extreme forms. Four such extreme patterns are usefully distinguished. The first, which we may call "neglect," involves minimal attention and care. The parents spend little time with the children, are undemonstrative, and let the child fend for himself. Fortunately, such homes are not common, but from them come children who are typically aggressive, rebellious, and attention-seeking, often to the point of delinquent behavior. A second pattern, which we may call "active rejection," combines emotional neglect of the child with domination and abuse. The child is frequently punished, threatened, ridiculed, or even deliberately frustrated in his desires. A classical description of this pattern appears in Dickens' accounts of English schools and foundling homes of the nineteenth century. Children from such a background also show hostile tendencies, but at the same time are likely to be fearful and anxious. They lack confidence as well as control.

Two quite contrasting patterns of parent-child relationship, first intensively studied by the American psychiatrist, David Levy, involve the opposite extreme—overinvolvement with the child. The first of these patterns, "overindulgence," involves yielding almost unconditionally to the child's whims and desires. Everything is done for him, and no constraints are imposed. The usual outcome, as one might expect, is an *enfant terrible*, a child who is domineering, petulant, self-centered, but at the same time incapable of caring for himself or acting responsibly toward others. A different form of overinvolvement is found in the "overprotecting" mother who smothers her child with affection and reward, but then exacts complete submission in return. The product is typically a Caspar Milquetoast personality, sensitive, shy, and submissive. It is noteworthy that both overindulged and overprotected children tend to be boys from families where the father is absent or psychologically impotent. On reaching manhood, such boys, if they marry at all, tend to choose women who are older than themselves and who resemble their own mothers.

All four extreme patterns of parental behavior tend to be associated

with higher rates of mental disorder, notably alcoholism and schizophrenia. In addition, the contrasting types of children's personalities that develop illustrate the general principle, supported by a growing body of scientific evidence, that the behavior of the child is a function of the balance between parental support, on the one hand, and parental discipline, on the other. This general principle is further complicated by the differential effects of various types of discipline. In recent years, for example, several investigators working independently have shown that so-called "psychological" techniques of discipline (such as reasoning, appeals to guilt, showing disappointment, etc.) are more effective in bringing about desired social behavior in the child than more direct methods (such as physical punishment, scolding, or threats). In fact, a number of studies indicate that the more a child is spanked for being aggressive, the more aggressive he will be. However, one must be careful about jumping to conclusions from such findings, for as yet researchers have not pinned down the direction of the relationship: is it the spanking that causes the aggressiveness, or the aggressiveness that brings on the spanking? Moreover, there are indications that a reliance on psychological techniques of discipline to the exclusion of more direct methods, such as spanking, may result in an "over-socialized" child lacking in spontaneity and initiative.

Such considerations may help explain the differences in behavior observed in children of different sexes and from different social class levels. Psychological techniques of discipline, for instance, are more likely to be used with girls than with boys, and are more frequently employed in middle-class families than in working-class families. It is also a well-established fact that girls are generally more obedient, cooperative, and better socialized than boys at comparable age levels, and that middle-class children are "better behaved" than children from lower socioeconomic levels. It is entirely possible that these group differences in children's behavior are in part attributable to the different child rearing practices employed by their parents.

Systematic differences are observed not only in the techniques used, but in the occasions on which they are applied. For instance, Melvin Kohn, a scientist working at the National Institutes of Health, has shown that working-class parents tend to punish children more for the consequence of their action than for the underlying motive, whereas the reverse holds true for middle-class parents. Much work remains to be done, however, in exploring the relations between parental techniques of discipline, the occasions on which they are employed, the

values in the name of which they are administered, and the effect of all these factors on the behavior of the child. In the meantime, the clearest lesson one can draw from available research is that extreme reliance on any one type of discipline—be it physical punishment, reasoning, or withdrawal of parental companionship—is likely to have undesirable effects.

What is the father's role in child rearing?

For many years, studies of child training practices and their results focused almost entirely on the attitudes and actions of the mother, with only incidental references to fathers. But with the advent of World War II and the consequent absence of many fathers from the home, a number of researchers became interested in examining the possible effects of this event, both on the children and on the mother. The results to date converge on two general conclusions. First, children from homes where the father is absent, especially boys, tend to be less aggressive, more dependent, and, in general, to show more feminine traits, than children from intact families. A partial explanation of this outcome comes from a study of Norwegian sailor families, by Per Olav Tiller. This investigator found that when the father was absent the mother was more likely to overprotect the child and to emphasize the importance of such character traits as obedience and politeness.

Studies of the behavior of both parents in intact families reveal consistent differences in the treatment of children by mothers and fathers. Whereas the mothers generally play a more prominent role, the fathers may take major responsibility for administering physical punishment and for activities involving competition or skill, especially with sons. Indeed, the difference in the behavior of the parents shows itself most clearly when one takes into account the sex of the child. In general, each parent tends to be somewhat more active, firm, and demanding with a child of the same sex, more lenient and indulgent with a child of the opposite sex. There is some indication that this differential treatment has contrasting effects on sons and daughters, but there is not yet sufficient evidence to warrant a firm conclusion.

One fact that stands out clearly in these studies is the special importance of the father for the behavior and personality development of boys. For example, paternal rejection or lack of warmth have been shown to be especially critical for the emergence of a variety of personality disorders in males, including alcoholism, schizophrenia, and

aggressive delinquency. The issue is complicated, however, by the fact that the parental behavior of the father is interdependent with that of the mother. For example, as we have already seen, when the father is absent or weak, the mother is likely to take charge and play a dominant role. In other words, in order to understand the impact of parental behavior on the child, we must consider the joint influence of both parents simultaneously.

Does it make any difference which parent "rules the roost"?

Curiously enough, this question has not received systematic research attention until relatively recently. In 1956 two sociologists, Melvin Kohn and John Clausen, showed that schizophrenics were especially likely to come from families in which the mother had a very strong authority role and the father had a very weak one. As in previous research, the trend was especially marked for boys. But maternal dominance can apparently have other results as well. In an experimental study, Bernard C. Rosen and Roy D'Andrade found that boys with a strong drive for achievement tend to come from families in which the mothers are pushy and highly involved emotionally in their sons, whereas the fathers are "competent men who are willing to take a back seat while their sons are performing." These investigators agree with previous researchers in the conclusion that "the dominating father may crush his son."

Findings of this kind would seem to support the view advocated implicitly and explicitly in writings by experts in family life that the ideal family, from the point of view of mental health, is one in which both parents share alike in the responsibilities of child rearing. But at least one series of researches calls this conclusion into question. In studies carried out both in the United States and in West Germany, U. Bronfenbrenner, E. C. Devereux, and G. Suci have found that boys whose parents serve equally as sources of affection and authority for the child are likely to be less competent, less responsible, and less self-sufficient than boys from families in which these activities are distributed between the two parents, provided the distribution is not too one-sided. As in many other studies, the pattern for girls, however, is not at all clear. This fact underscores a general characteristic of present-day knowledge about child rearing and its effects, namely, that we know and understand much more about personality development in boys than in girls. (See *Personality*)

What is the effect of family size and birth order?

Is it an advantage to grow up in a small family rather than a large one, to be the oldest child rather than the youngest? There are popular beliefs in support of both sides of these issues. What do the research data say?

Thirty years ago they seemed to be saying yes to both questions. Study after study showed that children from small families and the firstborns had higher intelligence quotients, did better in school, and were rated as better adjusted by their teachers. Nevertheless, although the same facts continue to be obtained, they no longer lead to as clear conclusions.

Take the question of family size. In the early 1940's, social scientists began to point out that large families were more likely to occur among economically deprived segments of society, for example, in rural areas, slums, immigrant neighborhoods, and the like. Thus the observed negative relationship between family size and psychological development could well be a spurious one resulting from differential opportunity. Studies with adequate controls for such extraneous factors have begun to appear only in recent years. Interestingly enough, they still report the same negative relationship, although it is much reduced in magnitude, and applies only to particular psychological characteristics. For example, J. D. Nisbet, an English investigator, has shown that the inverse relationship between family size and intelligence depends mainly on the slower verbal development of the child from the large family, possibly because such a child does not have as many opportunities for conversation with adults.

Working in another sphere, the American sociologist, Bernard Rosen, has found that the drive for achievement tends to be stronger in children from small families, but this tendency is pronounced only among lower-class groups. In explanation, Rosen points out that it is in the lower class that parents of large families are especially likely to be overburdened, to leave the child unattended, or to delegate his care to less competent persons, such as older brothers and sisters. Studies of this kind lead to the general conclusion that there is nothing psychologically harmful about large families as such, but certain conditions impeding development can occur more easily among large families than among small ones.

Similar considerations apply to the influence of birth order. The early studies on this problem showed all manner of advantages for the firstborn child. Eventually, however, researchers began to realize that

such findings were contaminated by the fact that later-born children were more likely to come from larger families and these, as we have seen, occur more often at lower socioeconomic levels. Curiously enough, once these factors were controlled, many psychological differences associated with birth order became even more apparent. To begin with, there were variations in the parental treatment of first-born *vs.* later children; the former not only received more affection and attention but were also subject to higher expectations and stricter discipline. The results of this differential treatment seem to be reflected in the behavior of older children. They tend to walk and talk earlier, they are more competitive and conscientious, and they conform more readily to adult standards, but, at the same time, they are more dependent, suggestible, and anxious than younger brothers and sisters. The latter, interestingly enough, show different characteristics depending on the sex of the older child. Children who have older brothers exhibit more masculine traits; those with older sisters are more feminine.

The parent does not usually notice such differences. What is more likely to concern him are the battles between his offspring. Sibling rivalry, as it is called, is almost a universal phenomenon, at least among American families, where expression of aggression by children is more tolerated than in many other societies. Rivalry tends to be greatest when the children are more than eighteen months but less than thirty-six months apart in age, although spacing to avoid this critical period is not likely to make any practical difference. The jealousy of the younger child is more likely to be focused around possessions, of the older child around being dispossessed from his privileged place in the parents' affections. It is the older child whose reaction is likely to be most intense and, as Alfred Lee Baldwin has shown, he is no rebel without a cause. In a fascinating study, Baldwin observed changes in the behavior of mothers toward an older child before and during pregnancy, as well as after the birth of the baby. The changes were dramatic. Over a period of a few months, the mothers showed a marked drop in affectionateness, approval, and just plain attention, with a corresponding rise in restrictiveness and severity.

This finding points to a major principle for dealing with sibling rivalry, or, more realistically, for keeping it within bounds. It is important that the transition in the psychological status of the older child be neither too sudden nor too severe. At the same time, it is not only futile but foolhardy to attempt to eliminate such a change altogether,

for it is a natural part of growing up. The absence of conflict and anxiety may be as harmful to the process of growing up as an overdose is.

What about differences in the upbringing and behavior of the only child *vs.* the oldest child, or of the youngest *vs.* the middle child? Unfortunately, well-controlled studies of such differences are only now beginning to be carried out. There is some evidence, for example, that the only child does not receive as much training in self-reliance as the oldest child with several siblings, and that the youngest child is especially likely to be pampered and overprotected, not only by his parents but by older brothers and sisters. The picture is considerably complicated, however, by differences associated with the sex of the child, the sex of his siblings, and the age interval between them. All of these factors appear to influence the manner in which the child is treated by those around him, and as a result affect to some extent the kind of person he becomes. As yet, however, the effects observed are too small and allow for too many exceptions to justify any advice to parents or others concerned with day-to-day problems of child rearing. (See *Character Structure*)

Can persons other than family members have an important influence on the child?

This is another question about which we know very little, probably because in our Western society the job of child rearing is thought of as belonging almost exclusively to the mother and the father. But other societies have done things differently, and many of them still do. In many parts of the world, for example, the training of the child is shared by others: grandparents, aunts and uncles, in-laws, or the adult community as a whole. Although we are only beginning to get information about the effects of this kind of child rearing, there is enough evidence to indicate that it can be quite effective, and that it produces personalities which are somewhat different in their psychological characteristics from the products of our own more specialized pattern.

It is, of course, true that from the age of six years onward, children in the West spend most of their waking hours at school rather than at home, but to date, relatively little attention has been paid to the impact of such influences on a child's behavior and character. The few studies that have been done, however, suggest that this impact may be somewhat greater than we think. There are at least two investigations, for example, of situations in which the values fostered by the school or

the peer group have been contradictory to those emphasized in the child's family. Both studies show that the outside influences have an impact equal to or greater than that of the family.

Such findings take on added significance in view of the emphasis being given today throughout the Communist world on the application of methods of character education in collective settings outside the family, beginning in the first year of life. The boarding schools in the Soviet Union and the communes in Communist China separate children from their parents as early as three months of age in order to give them training in group living and collective achievement. Although we know very little as yet about the possible effects of such radical departures from the traditional ways in which mankind has reared its young, the available evidence suggests that these new methods may be quite effective for developing the attitudes and patterns of behavior desired by the Communist society. Future scientific inquiry is likely, therefore, to focus on the question of the effects and effectiveness of bringing up children in the nuclear family versus the collective. (See *Child Development*)

PASTORAL COUNSELING

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What is pastoral counseling?

Pastoral counseling is the helping approach, available to troubled people with social, emotional, and especially religious concerns, that combines the guidance of religion and the interviewing skills derived from social work, psychology, psychiatry, and psychoanalysis. It is practiced by a pastor, religious worker, or counselor, in a religious setting.

Is pastoral counseling different from the advice or comfort that clergymen traditionally have given to their parishioners?

In some ways it is no different from the advice or comfort that intuitive and helpful clergymen have traditionally provided. It does, however, draw on three additional resources: (a) clinical training and experience of pastors in hospitals, prisons, or parishes where, under supervision, they have come to know some of their effects on persons and to recognize their own strengths and limitations; (b) understanding of the theories of the nature of human emotional life that have been discovered and taught by the behavioral and healing sciences; (c) the opportunity for teamwork with, or referral to, other professionals who can provide more focal and specialized care for parishioners suffering from difficulties in areas where the pastor is neither the only nor the best source of help.

How is pastoral counseling distinguished from other therapies?

It is different from other therapies in that its practitioners generally avoid the areas of the unconscious, dream, or psychotic processes, although in special instances when working as part of a clinic team, they may overlap. It is also different in that the pastor overtly represents in his person, and sometimes through his words and acts, a church or congregation, a body of doctrine, and a moral code. Although he is free to temper the wind to the shorn lamb, he is never

able to be utterly neutral or pretend to be divorced from the people, the tradition, or the mores of his religious group. In working with persons of other faiths, however, a chaplain may withhold those aspects of his denominational identification that would be inappropriate to the person being counseled.

What are the aims of pastoral counseling?

Its aims are restoration of the person to wholeness—emotional, spiritual, and social. This means that self-acceptance, acceptance of God, and acceptance of neighbor are related goals.

What is the history of pastoral counseling?

Its history is as old as religion. The prophet-priest-witch doctor of the past gave way to the spiritual director whose duties became separated from both the general physician and the psychiatrist. In 1925 Anton Boisen began the clinical training and supervision of pastors in mental hospitals. In 1936 at Massachusetts General Hospital, Richard Cabot, a physician, and Russell Dicks, a pastor, had begun to teach the importance of pastors being informed in the care of the physically ill. From these two roots the tree of clinical pastoral care grew among Protestants in the United States.

Meanwhile, physicians, as a result of their orientation in psychosomatic and comprehensive medicine, had come to see that a view of man in his wholeness could not exclude the spiritual aspects; thus, to some extent, the medical world was ready for the developments in the ministry. Jewish, and later Roman Catholic, interest followed gradually, eventually with development of parallel clinical pastoral training programs. More recently seminaries of most groups have begun to provide clinical courses and experience for many of their students.

What are the major emotional or psychiatric problems with which pastoral counseling deals?

One cannot specify absolute limitations; these will depend on the setting and the training of the clergyman and the availability of other types of care. The obvious problems are those having to do with grief, marriage, physical illness, guilt over wrongdoing, and matters of religious or theological concern. The minister is also involved in the education, care, and training of youth, and is frequently consulted about their problems.

Everyday suffering is part of man's lot. Grief over death and loss is to be expected. Mourning is a process in which religious institutions

and practices have always played a part. Religion, too, is connected with the sanctioning and regulation of sexual behavior and other mores, and is called upon to interpret the individual case and to relieve the conscience of the straying, restoring the brokenhearted, and reconciling the estranged.

Are these problems different from those dealt with in other kinds of counseling?

Ministers deal with problems that are much more common and "normal" than those usually reaching psychiatrists.

Are there any emotional or psychiatric problems that seem to appear only or mostly among persons who have church affiliations? Is the practice of religion itself a factor in these problems?

Among persons with church affiliations there are certain varieties of problems that appear more often. An example among Roman Catholics is the problem of "scrupulosity," an attitude of a parishioner who sees sin where it is not and/or doubts that his confession and the absolution are valid. Such a person may return to confession again and again without getting relief. A young or clinically untrained priest may be puzzled. A more experienced or clinically trained priest may be able to recommend or provide help outside the confessional. Among Jews there are problems of identity related to pressures for assimilation, and to the many meanings of Jewishness: national, cultural, familial, religious, etc. There may be special types of guilt connected with changing religious practices or with intermarriage. In Protestants certain other types of conscience problems may appear--guilt over "worldliness," "the unpardonable sin," or failure to love and to forgive. Some psychiatrists and theologians believe that some religious practices foster, or at least fail to allay, these disturbances.

What are the chief characteristics of pastoral counseling?

They may be introduced as follows: (a) the pastor's acceptance of the person as he is, not demanding that he start out "as he should be"; (b) the pastor's unvoiced acceptance as a representative of the congregation and church, on the one hand, and of God, on the other; (c) the availability, within a faith group, of channels of forgiveness for working out normal guilt; (d) a means of restoring fellowship; (e) a viewpoint looking toward the integrating of many levels of human life and toward helping the parishioner to integrate them meaningfully for himself in the context of a faith group.

How many clergymen participate in pastoral counseling?

Whether they like it or not, or whether they are trained for it or not, most, if not all, pastors do some pastoral counseling. Those with special training give several hours a week to interviews; others may respond in accord with the demand. A few churches and synagogues assign the bulk of one (or more) clergyman's time to counseling.

What is the special training of these clergymen?

This varies, depending on background and orientation. Some have been trained, before or after their theological education, in social work, psychology, or, rarely, in psychiatry. Their principal instruction has been in institutes, seminars, workshops, or clinical pastoral training. The latter is perhaps the most generally available and most validly appropriate preparation for pastoral counseling within the parish setting. It consists of from one to three or more quarters (twelve-week periods, often taken during the summer) of full-time training within a general or mental hospital or correctional institution. Within such a program a trainee is assigned to a qualified supervisor, himself a clergyman with advanced clinical training. The supervisor and the clinical staff of the institution arrange for lectures, seminars, staff conferences, group and individual supervision, and the assignment of the student to act as pastor to a number of patients or inmates. The latter are visited by the trainee, who functions as a chaplain-in-training (in the ministry this is the equivalent of an internship). He writes careful verbatim accounts of the interviews, sometimes electronically recording them for subsequent study and analysis. He is supervised in a manner similar to that of social workers or psychiatric trainees. He comes to understand more of his own and his parishioner's feelings, the thematic expression of the problem and conflict, and some of the approaches appropriate for a minister of religion. Sometimes the latter are expressed in traditional religious terms, sometimes in terms that appear psychological, but have religious undertones.

Is there certification of pastoral counselors?

Not as such. However, graduates of various types of training programs may be certified as chaplains.

Are there organizations of pastoral counselors? What are the major ones?

The Council for Clinical Training, Inc., and the Institute of Pastoral Care are the two principal certifying and membership organi-

zations. Chaplains may also belong to the Catholic, Protestant, or Jewish Associations of Hospital Chaplains, to the (interdenominational) Mental Hospital Chaplains Association, or to an organization of correctional institutions.

How many people are served by pastoral counselors?

No one knows, but in a forthcoming report of research carried out by Richard McCann, for the Joint Commission on Mental Illness and Health, some estimates will be suggested.

Is there an adequate pastoral counseling program?

Regardless of the amount of pastoral counseling being done, it appears insufficient, according to all available reports. Everyone doing this kind of work seems to feel overworked, and probably is.

How does the individual come into contact with pastoral counseling?

Generally the individual asks help from his own pastor or rabbi; or often, through seeking out a pastor or rabbi of another congregation or denomination. He may also apply for assistance to one of the growing number of pastoral counseling centers across the country. Finally, a growing number of persons are being referred to pastors by physicians, psychiatrists, social agencies, and school counselors.

Is pastoral counseling available to persons who are not members of the church?

Yes, in almost every instance.

What is the relationship between the individual and the clergyman in pastoral counseling?

The relationship varies. It may be one where the troubled person seeks comfort, assistance, advice, information, judgment, or punishment. It may be one that involves offering or refusing any of the foregoing. Helping the counselee to find the level of his need may lead him to work out his problems through religion or psychiatry or some other help-giving source. Hence, pastoral counselors frequently serve as referral channels. By no means do they consider themselves the end-station for all cases, inasmuch as many persons are found to have problems other than those indicated by their symptoms, and some persons are found to need multiple sources of help.

Is this relationship hampered by the individual's reluctance to reveal his weakness or wrongdoing to a clergyman?

No. However, if the individual has preconceived notions regarding the counselor's attitudes, usually he will seek another clergyman. All counseling depends upon the counselor's readiness to recognize his possible symbolic threat to the counselee, and upon the counselee's ability to face and overcome his resistance to trusting and confiding in the counselor.

Is the relationship between the pastor and the individual strengthened by the individual's belief that the church is a source of help?

Often this is the case. A great deal depends upon whether or not his past experience with the church is that of a helping agency or a condemning one. Also, it depends upon the unconscious need of the counselee to be punished, judged, acquitted, or given freedom.

Is pastoral counseling undertaken in clinics or guidance centers? Is there a fee for such counseling?

Only rarely is it undertaken in clinics or guidance centers. There is, however, a growing tendency to experiment in two ways: (1) by having pastoral counselors on the staffs of conventional clinics or guidance centers, (2) by developing pastoral counseling centers in such a way that they become similar to, or overlapping with, the facilities of conventional clinics. There may be a fee in clinics that depend on this for their support. In church-supported clinics gratuities may be accepted.

What is the relationship between pastoral counseling and the psychiatric therapies? Does the clergyman ever suggest psychiatric therapy to the individual or his family?

The relationship depends upon the communication between the pastor and the psychiatrists in his community. If this is good, there will be a mutual exchange of functions, trust between the professions, and no excessive rivalry or competition. Each will recognize and perform his functions, and both will cooperate in areas where these functions overlap. Clergymen commonly refer parishioners to psychiatrists; psychiatrists less often suggest a clergyman. Perhaps this difference is partly a holdover from psychiatry's alleged antireligious bias of the past; perhaps it is partly that a psychologically trained minister is harder to identify and locate than is a psychiatrist. However, this latter point may be reversed in certain geographical situations.

Is pastoral counseling undertaken in mental hospitals? What is its nature in connection with the mentally ill?

Yes. In fact, many consider modern pastoral counseling to have arisen precisely within this setting. Anton Boisen, father of modern pastoral counseling, believes that mental illness may represent an attempt at solution of a deep spiritual problem or quest. If the attempt is successful, the patient emerges victor over the situation and in some ways better for having had the experience. Others fail or despair in their search. The pastoral counselor may assist in maintaining the patient's faith that there is a meaning in life worth discovering, a relationship worth sustaining.

What is the role of the mental hospital chaplain?

The mental hospital chaplain serves several functions. He seeks, when it is desired, to assist the patient to feel that he is not cut off from his congregation and that he can return to it. The chaplain relates himself to pastors and congregations in the surrounding area as representative of both the hospital and the patients. Within the hospital he carries out the functions of pastor, priest, or rabbi, conducting services, administering sacraments, and giving religious instruction where desired. He may also do varying amounts of individual and group pastoral counseling. In some hospitals, especially where there is a shortage of doctors, he is also asked to do some types of psychotherapy under supervision.

How does pastoral counseling in a mental hospital differ from such counseling in other institutions—prisons, residential treatment centers, etc.?

Pastoral counseling in a mental hospital has a special focus on the situation and needs of the psychiatric patients. The mental and emotional alienation experienced by patients, and the relation of religious thematic material to the content of distorted thinking and perceiving, constitute special concerns. Also the chaplain is vitally involved, in cooperation with the hospital, in restoring the patient to sanity, family, and community, including the religious community.

In prisons the emphasis may vary, depending upon the personality and religious background of the inmate. In some cases the focus is upon restoring his confidence: (a) so that he can return to a normal, noncriminal life; (b) so that a crime does not forever cut him off from the future. In other cases it may be necessary to strengthen his

conscience and his capacity to anticipate and avoid temptation, by means available through the religious group. Unfortunately too few congregations give support to the chaplain in his efforts to restore the convict to his community.

In residential treatment centers and other institutions for children and youth, there is more emphasis upon the educative aspects of religion appropriate to the age-group in question and more sensitivity to the special developmental concerns and questions, such as knowledge of religious beliefs and practices, vocation, sexual development, etc.

Are there programs for education or prevention carried on in connection with pastoral counseling?

Some pastoral counseling centers also maintain public educational programs designed to increase community insight among persons and families, to improve child rearing practices, and to assist in interpreting religious faith and practices in a mentally healthy manner. Most pastoral counselors do a moderate amount of premarital counseling and parent guidance in family and child rearing problems.

How does pastoral counseling serve the purposes of general research into human behavior?

To the extent that researchers are able to study and tap the knowledge that pastoral counselors have acquired through experience with varieties of persons who may seldom go to other counselors, they have a vast resource of potential information about mild types and early forms of emotional disorders. Furthermore, the sophisticated pastor may be in a position to help us to better understand the healthy versus the pathological forms of religious attitudes and observances.

Examples of pathological forms of religious attitudes are: use of religious pretense to control, manipulate, or harm others; honest but misguided confusion of neurotic with religious motives, especially in pursuing alleged virtues; exaggerated legalism, moralism, rationalism, or existentialism—that is, lack of balanced perspective; loss of continuity with traditional historic faith group and/or contemporary faith community, that is, having a private religion.

Based on current studies, what might be predicted about the methods and scope of pastoral counseling in the future?

It seems likely that most pastors will be made aware of the psychological aspects of the types of counseling that pastors have always per-

formed. They will see mental health implications in areas of their work that may formerly have been regarded as neutral or irrelevant for mental health. They are likely to begin their pastorates with greater understanding of the psychological nature of man. They are likely to know considerably more about the means of cooperation with other helping professions in the field of mental health. In addition, they are more likely to know their abilities and limitations and to seek to increase the former and clarify the latter. They are likely to be more critical of slipshod work in the other professions wherever they encounter it and to recognize excellence more knowingly.

From the side of psychiatry there is a growing awareness of the legitimate function of pastoral counseling together with a continuing wariness lest it be used as an unsatisfactory substitute for psychiatric treatment. Psychiatrists seem more and more ready to assist pastors in their learning, and are beginning to recognize that their own profession may have to take religion more seriously, and that they themselves can learn from pastors and pastoral experience. It may be expected that the clarification of the boundaries between pastoral counseling and psychiatry may go through stages of being too strict and hence controversial, then swing the other way, and finally discover a workable midpoint.

It is the church's concern that its other functions are not lost sight of or minimized through excessive preoccupation with the counseling function. Probably the resolution of this concern will emerge through a rediscovery and reexamination of the innate and traditional assets of the church that bear on mental health, and the renewed use of them within the context of religious education, fellowship, and worship.

Examples of such assets of the church are:

- 1) Provision of the groundwork, background, and support of a sense of personal and group identity;
- 2) Provision of a system of meaning for life—in general, and for one personally;
- 3) Provision of ways of viewing and handling guilt, forgiveness, death, conflict, uncertainty, suffering, hostility, etc., specifically, through theology, lore, tradition, sacrament, confession, absolution, adjudication, etc.;
- 4) Provision of a fellowship with a past, a present, and a future, tied together by rites, worship, prayer, theology, a faith history, and an ethic;
- 5) Provision of a more or less comprehensive view of man in society.

PERCEPTION

by PHILIP S. HOLZMAN, P.H.D.

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What is perception?

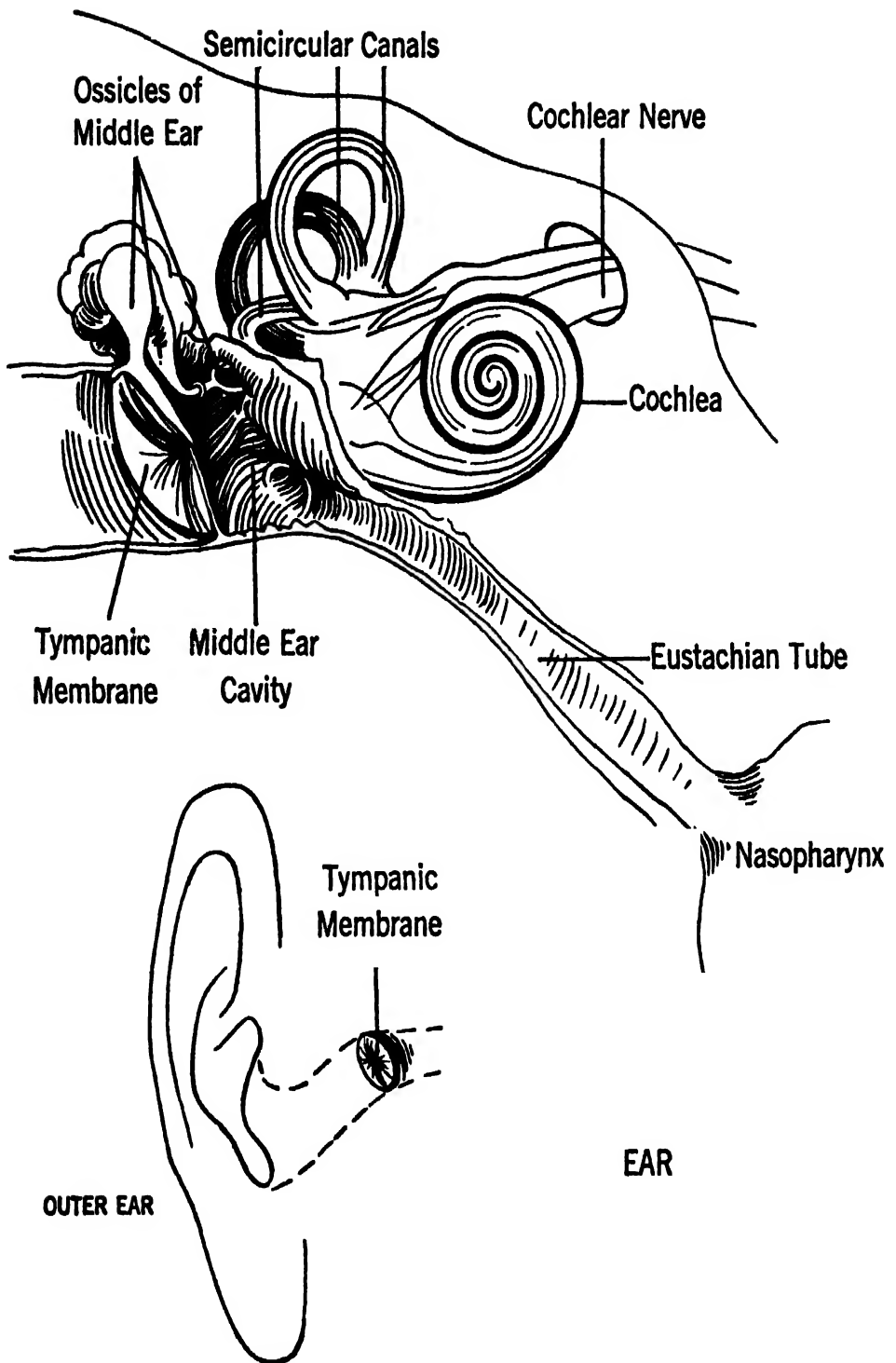
Perception is a person's active detecting and identifying of stimulation from the environment—such as sound waves—or from within the body—such as muscle movements. Perceiving requires a physical stimulus (such as light, sound vibrations, or touch), exciting a sense organ. The sense organ transforms physical energy from the stimulus into information about the stimulus. The perceiver appraises the information in the light of previous perceptions and experiences; he sees, for example, not simply a round red object, but an apple. He makes judgments, attributing personal values or significance to it; he sees the apple as a “tasty-looking apple.” There is also a bodily adjustment to the percept (the impression of an object obtained by use of the senses), perhaps a turning toward or away from the object. Our perceptions, then, are not mere photographic reproductions of reality, but are personalized constructions. Yet, most of the time there is a very good relationship between the way things look and the way they actually are.

What are the functions of perception?

Perception is a psychological point of contact between ourselves and our environment. Its principal function is to carry information from the environment for integration with other psychological functions, such as learning, memory, judgment, and anticipation. Through perceiving we get information not only about external reality but also about the consequences of our actions on that reality. Effective perceiving thus contributes to effective adaptation to our environment. (See *Memory*)

What are the factors that influence perceiving?

Many conditions, both in the objects perceived and in the perceivers themselves, affect the way events appear. Characteristics of the object itself, such as its solidity or color, and the circumstances in



which the object appears, for example, whether the surroundings are misty or clear, dark or bright, empty or cluttered, influence our perception of the object.

Learning influences the appearance of objects. A tilted circle still looks like a circle, although the image on our retinas is more elliptical than circular. Our past experience helps us to achieve this constant perception of objects, although the actual image on our retinas may be continually changing. The capacity to maintain the constant identity of objects helps us to stabilize a world that might otherwise be a confusing kaleidoscopic experience. How ready we are to see a particular object determines to some extent whether and how we will see that object. Our bodily state—whether we are tired, hungry, or excited—influences our perceiving. The football player whose leg is injured may not feel the pain of the injury during the excitement of the game. Muzafer Sherif has shown that the social situation at the time of perceiving—Who is there? How many people? What is their relation to the perceiver?—affects what one may perceive.

Our personal store of memories and experiences against which we evaluate our perception also influences the quality of our sense experience. For example, the trained musician will experience a performance of a Beethoven quartet differently from a musically untrained listener.

Do men differ from women in their capacity for perceiving?

Some psychologists have reported different performances by men and women in some perceptual experiments. H. A. Witkin noted that men are better able than women to detect figures that have been camouflaged. Men generally seem to perceive spatial relations more easily than women. But it is not clear whether such differences are due to sex or are responses to cultural pressures.

Does perceiving alter in the aging process?

In early infancy, perceiving, like learning and memorizing, is primitive and rudimentary, but it rapidly becomes a more complex experience. As the child matures, he learns to coordinate all of the sensory, intellectual, physical, and motivational processes involved in perceiving.

In the middle years, the efficiency of our sense organs declines. But other processes involved in the act of perceiving, such as motor responses and judgment, may decline relatively little even in a person's seventies. Consequently, where perceptual performance depends prin-

cipally upon sensory discriminations, there is a noticeable decline in perceptual efficiency after the age of forty. But where motor adjustments, judgment, past experience, and motivation contribute significantly to the perceptual act, there may be little detectable decline in perceptual efficiency. For example, it is well known that middle-aged drivers have fewer automobile accidents than younger drivers.

There are wide individual differences in perceptual efficiency, and many people of eighty perceive as effectively as some people of thirty. Of course, where there is impairment of memory and other intellectual functions by arteriosclerosis or other degenerative diseases, there also will be a noticeable decline in perceiving. Insufficient use of intellectual or perceptual abilities will also manifest itself in a decline in perception. A decline in effective perceiving is probably least apparent in people of superior intelligence. (See *The Aging and the Aged*)

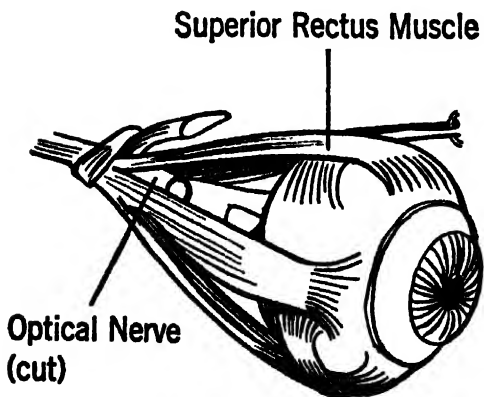
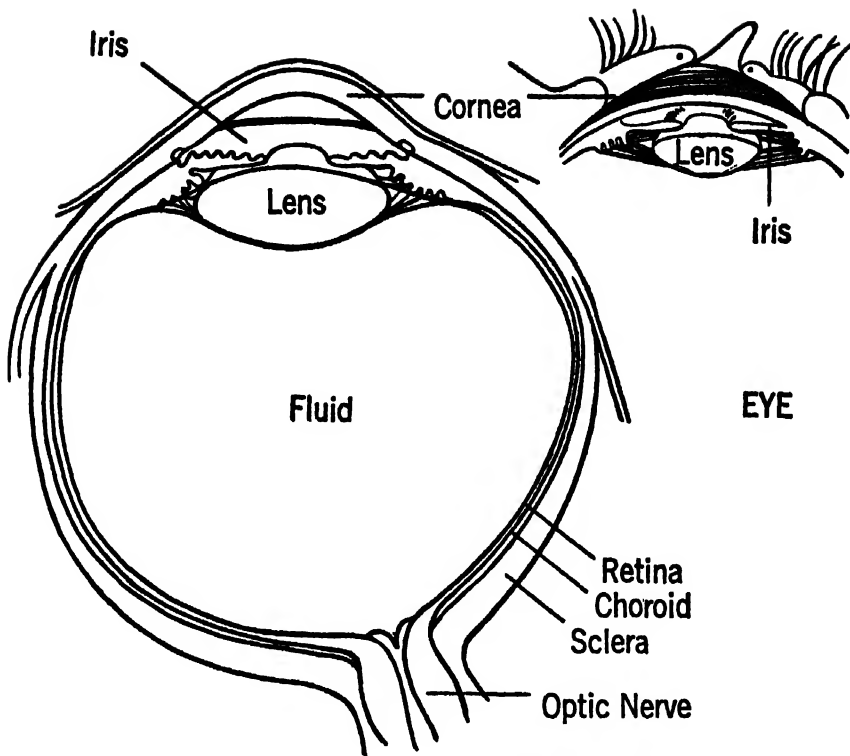
What is correct perception?

By correct perceiving psychologists usually mean "effective" or "adaptive" perceiving. But there is no correct perceiving in the sense that there is only one right way to see things. It is not "incorrect," for example, to "see" the lights moving around a theater marquee, although in reality we know the lights are not moving at all, but are blinking at a certain rate. Although the standards of correctness among people are wide, there are limits to what can be an effective perception. Such individual differences in perceiving generally do not indicate the operation of distorting mechanisms, but rather reflect individual ways people have of bringing sense organ experiences into relation with each other, with their past experience, and with their own standards of adequacy.

What causes misperceiving?

Many factors in our environment and within ourselves cause us to misperceive. There are, in fact, so many ways that effective perceiving can be disrupted that we might well ask the question, "How is it that we perceive so well in the face of all these obstacles?"

Factors outside of us that disrupt adequate perceiving include the way in which objects themselves are constructed; sometimes objects are arranged in such a way as to give rise to optical or other sensory illusions. The medium through which the physical energies are transmitted may interfere with perception. For example, a stick submerged in a tank of water is really not where it seems to be.



MUSCLES OF THE EYE

Factors working for misperceiving inside the perceiver include inadequately functioning sense organs, such as defective eyes or ears. Misperceiving is inevitable also when there is specific damage to certain parts of the central nervous system where perceptual information is registered, evaluated, or integrated. Lesions in certain areas of the brain result in many failures of perception. (See *Brain Damage; The Nervous System and Behavior*)

Fatigue can disrupt adaptive perception. Strong emotions or anxieties can affect the tonus of muscles and, therefore, affect the kinds of cues about the environment that we get from postural adjustments involved in the act of perceiving. Where internal conflicts interfere with our memory of past perceptions there is likely to be an altered evaluation of present perceptions. (See *Stress; Anxiety; Emotional Crises*)

Some people with serious personal problems may turn their interest away from their environment and toward themselves. This turning of interest toward oneself has the effect of making one less responsive to stimulation from the outside and more receptive to sensations from one's own body. The outside world may then appear changed and shadowy, whereas sensations from one's own body may assume a disproportionate significance, such as in the form of severe hypochondriasis.

What are the manifestations of misperceiving?

One manifestation of misperceiving is personal discomfort that ranges from an experience of disorientation to profound confusion. But any maladaptive action such as misrecognition or misjudgment probably involves misperceiving. (See *Sensory Isolation*)

How can misperceiving influence characteristics of the individual?

To a great extent, personality is molded by our experiences with our environment. Anything that interferes with a person's contact with reality early in life will result in the development of personality characteristics that are poorly suited for adaptation. Poor impulse control can in some cases be traced to an impairment early in life of the means of gathering and integrating information about reality. It therefore is most important for children, particularly those with serious sensory defects such as blindness or deafness, to have skilled teachers who can aid in overcoming the deficiency in acquiring information about the environment. At any age, adaptive perceiving is important for assessing the consequences of our actions and, therefore, essential for the development and maintenance of controls over our impulses and emotions. (See *Personality; Child Development*)

Can misperceiving be desired and maintained unconsciously?

Yes. A person's unconscious wishes, purposes, or attitudes influence the ways in which he evaluates and responds to incoming sensory information. His evaluations and integration of perceptual facts will be consistent with, and therefore support, his unconscious purposes. A man who unconsciously is fearful of his own hostility may "overlook" manifestations of his own hostile actions; he may even misinterpret someone's helpful action as a hostile act, for it would suit his unconscious purposes to perceive the origin of the hostile action in someone else rather than in himself. (See *The Unconscious*)

Is there a connection between incorrect perceiving and mental illness?

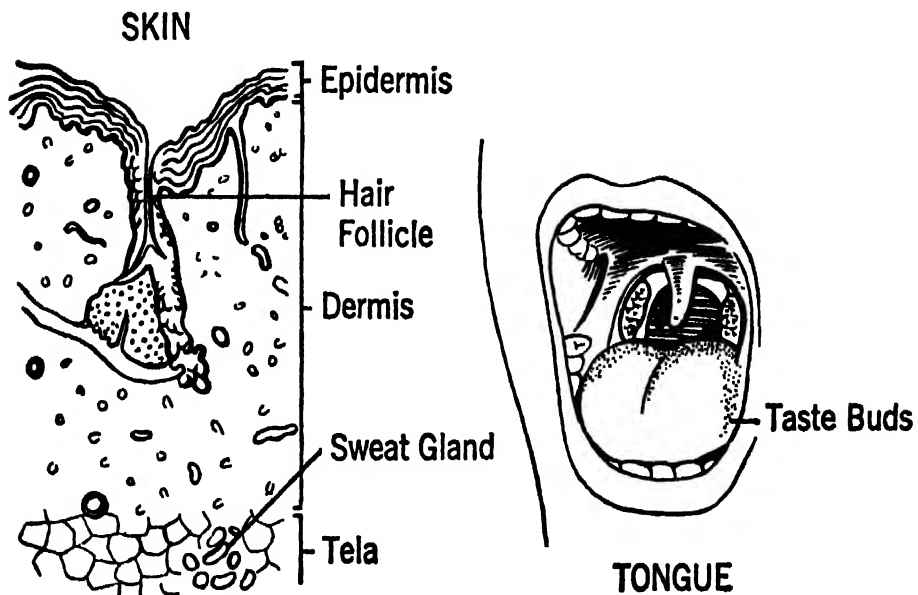
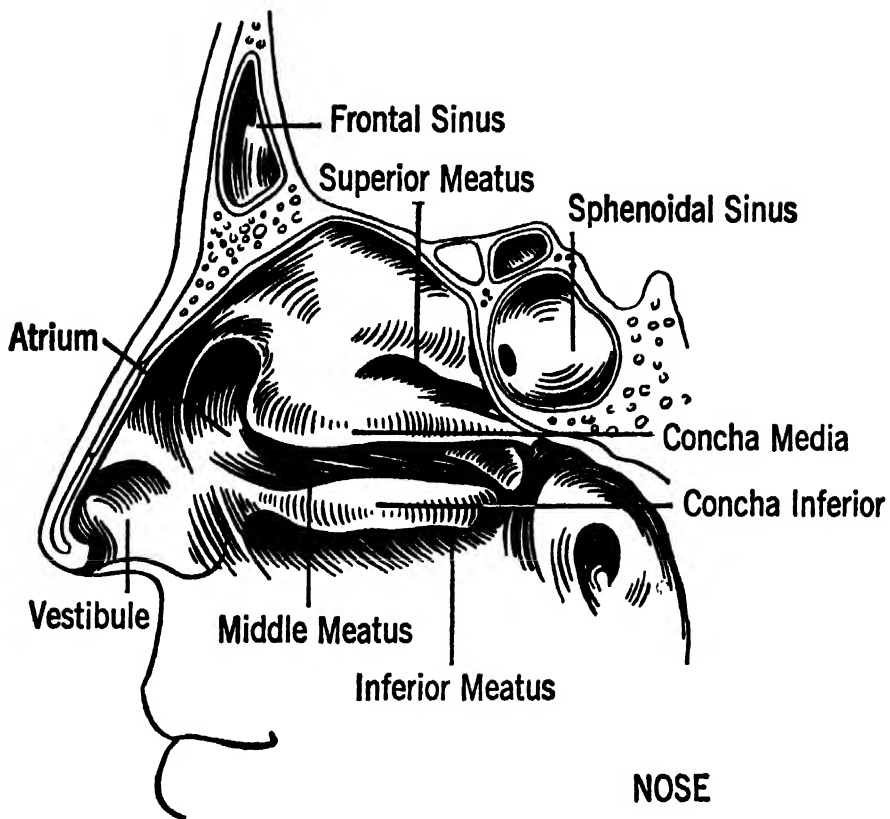
Yes. Consistent presence of certain kinds of misperceptions, such as hallucinations or misrecognitions, may be indicators of mental illness. But there are also expected individual differences in perceiving, which express the normal person's individuality and personal style of making contact with the world.

What changes in perceiving take place in mental illness? Are these changes reversible?

In his manual for psychiatric case study, Karl A. Menninger suggests a classification for perceptual changes in mental illness according to "deficiencies" (diminished range or accuracy of perceiving, etc.), "excesses" (overalertness or hypersensitivity to stimulation), and "distortions" (hallucinations, etc.). Some of these perceptual changes may indicate the presence of organic conditions such as arteriosclerotic brain changes or toxic conditions. Where these changes are manifestations of the individual's adjustment to the stresses of life, and do not involve organic damage, they are potentially reversible. (See *Organic Brain Disorders*)

How does one learn to correct misperceiving through psychotherapy, psychoanalysis, or other therapies?

In most psychotherapies, including psychoanalysis, the therapist is in a position to call to the patient's attention how he misinterprets the actions and intentions of other people, and, therefore, how he may be expecting something from people that they are not prepared or able to do. With the therapist's help, the patient explores his own experiences, present and past, in order to understand the personal motives, wishes, and general attitudes toward the world that distort his perceiving. Understanding the unconscious purposes of his misperceptions



is a first step toward making perceiving more accurate. (See *Psychotherapy; Psychoanalysis*)

How can misperceiving affect the relationship between the individual and the therapist?

The fact that the individual knows very little about the therapist increases the probability that he will misperceive the therapist at least in some respects. These misperceptions will inevitably color the patient-therapist relationship. For example, one person may perceive the therapist's silence as evidence of cruel exploitation of that patient's helplessness; another may perceive the silence as the therapist's sympathetic patience. The therapist knows that these misperceptions reflect the patient's expectations and assumptions about people in general. Sigmund Freud maintained that in these misperceptions the patient repeats the ways in which he related himself to significant people in his past.

What makes an individual able to perceive other people's feelings and motivations?

When we say, "I see that you are sad," we mean considerably more than that we are perceiving another person's feeling. We may mean that we see a person is crying, or that we know he is sad, or that we may, ourselves, feel (empathize with) his despondency, or that we identify ourselves with his momentary feeling.

We derive our understanding of another's state of mind at a particular moment from several complex psychological processes, and perception is only one of them. From our perception of facial expressions, posture, tone of voice, and other expressive gestures (for example, a person crying), we make inferences about what the person is feeling—sadness. To know intellectually what a person feels, we must evaluate his expressive cues against our knowledge of that person's present life situation. The more we know of his life circumstance, the more accurate our inference is likely to be. Empathizing with a person begins when we recall and re-experience our own feelings from similar situations; we may then, automatically, attribute our revived feelings to that person and correct our judgment and inferences by further observing and sifting the cues to the person's emotional experience. This capacity for empathy is lessened if we are uncomfortable with emotional experiences, or treat our observation of feeling states too intellectually, or give way too easily to our own emotional involvement. (See *Emotions; Motivation; Insight*)

PERSONALITY

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What is personality? To the layman? To the psychologist?

To the layman, personality is a phenomenon, something that can be seen and experienced—the physical appearance of a person as well as his manner and style of behaving.

Among psychologists there is less agreement as to how personality is to be most meaningfully thought of. Some, like the layman, think of personality in terms of the external effect that a person has upon others or upon society. Others, rejecting this “mask” definition, have defined personality as the inner essential nature of man, offering, in effect, a “substance” definition of personality. In recent years, however, psychologists as scientists concerned with the prediction of behavior have increasingly thought of personality as a complex concept, a set of hypothetical constructs in terms of which an individual's behavior can be predicted and explained. “Personality is that which permits a prediction of what a person will do in a given situation” (R. B. Cattell). “Personality is the more or less stable and enduring organization of a person's character, temperament, intellect, and physique, which determines his unique adjustment to the environment” (H. J. Eysenck). “Personality is the dynamic organization within the individual of those psychophysical systems that determine his characteristic behavior and thought” (G. W. Allport). In short, to the psychologist, personality is for the most part not a phenomenon, but a conceptualization of a complex set of biological givens that are modified and shaped by individual experience into a more or less enduring dynamic organization of psychophysical structures which underlie and determine a person's characteristic thought and behavior.

What is the history of the study of personality? Who are the important contributors to this study?

The study of personality began in ancient Greece with a searching for differences in physical constitution to explain personality differences and especially differences in temperament.

Hippocrates, the "father of medicine" (circa 400 B.C.), sought to explain differences in temperament—sanguine, melancholic, choleric, phlegmatic—in terms of the predominance of one or another of four assumed humors or fluids in the body—blood, black bile, yellow bile, phlegm. The humoral theory of Hippocrates has long been rejected, but the temperamental types are still recognized, and hormones play the role in modern endocrinology and its attempts to explain temperamental differences that humors did in the Hippocratic theory.

A closely related attempt to explain differences in temperament by reference to differences in physical constitution, more specifically differences in morphology or body-build, also had its beginnings in the work of Hippocrates. The morphological approach to the study of personality was revived in the nineteenth century by a group of Italian and German researchers. The most influential of these was Ernst Kretschmer, the psychiatrist, who developed a threefold classification of body types, which were in turn related by him to types of temperament, both normal and abnormal, and to predispositions to psychosis. According to this scheme, persons of pyknic physique (short, broad, and fat) are characterized by a cyclothymic temperament (extroverted and fluctuating between gaiety and depression), which when extreme becomes the cycloid temperament of the manic-depressive patient. Persons of asthenic physique (tall, slight, and thin) have a schizothymic temperament (introverted, serious, and hypersensitive), which in the extreme becomes the schizoid temperament of the schizophrenic patient. Persons of athletic physique (muscular) are intermediate in temperament and less disposed to functional psychoses.

Though severely criticized on the grounds that it is difficult to classify most persons with any degree of accuracy into one or another of the three types of body-build, and that too many exceptions to the assumed relationships between physique, temperament, and psychosis are to be found, Kretschmer's work has, nevertheless, exerted considerable influence.

Beginning in the 1930's, W. H. Sheldon sought to improve upon Kretschmer's work by replacing qualitative impressions with quantified ratings in the determination of body-build, but more importantly by conceptualizing three components of structure, each principally derived from a different layer of embryonic tissue. In Sheldon's scheme there are three somatotypes (types of physique): *endomorphi*c (corresponding closely to the pyknic), characterized by a soft roundedness of the body, which results from a dominance in the bodily economy of

the digestive viscera derived principally from the endodermal embryonic layer; *ectomorphic* (asthenic), characterized by linearity and fragility and, relative to body mass, by the largest brain and central nervous system and greatest sensory exposure to the outer world—the nervous system deriving from the ectodermal embryonic layer; and *mesomorphic* (athletic), characterized by a relative predominance of muscle, bone, and connective tissue, which are derived from the mesodermal embryonic layer.

Each somatotype has its related temperament: the viscerotonic temperament (cyclothymia) of the endomorph, the cerebrotonic temperament (schizothymia) of the ectomorph, and the somatotonic temperament (not represented in Kretschmer's system) of the mesomorph. Though characterized by methodological improvements and conceptual refinements, Sheldon's system has many similarities with Kretschmer's scheme and like it has been subject to much criticism.

The attempt to describe universal types of human beings in psychological and behavioral terms—an enterprise which is known as "literary characterology"—also had its beginnings in ancient Greece in the writings of Theophrastus (circa 287 B.C.). In the tradition of literary characterology have been such authors as Geoffrey Chaucer, Ben Jonson, Jean de La Bruyère, Joseph Addison, Richard Steele, Samuel Johnson, George Eliot, Samuel Butler, and Fëdor Dostoevski, whose writings, though psychological in nature, have been mainly descriptive rather than explanatory, and humanistic rather than scientific. Nevertheless, some of our most vivid and most psychologically valid descriptions of personality types are to be found in the writings of men of letters. Certainly those portraiture of persons that are most widely known and that have exerted the widest influence on attempts to picture easily recognizable types of personality derive from literature rather than from science. Examples of the enrichment of our vocabulary of personality from literary sources come easily to mind: Falstaff—Falstaffian, Babbitt—Babbitttry, Machiavelli—Machiavellian.

The attempt to explain differences in personality in terms of psychological concepts is a much more recent development, originating in the latter part of the nineteenth century in the work of the medical psychologists, most notably Sigmund Freud, and his early collaborators in the founding of psychoanalysis, Carl G. Jung and Alfred Adler. The theories of personality developed by these investigators grew out of clinical practice and observation of persons suffering from psychoneurotic and psychotic disorders. It is not surprising that their descrip-

tions of personality and the theories they have developed to explain differences in personality have been criticized as biased and incomplete, more adequate for the description and conceptualized representation of sick persons than of normal and superior individuals.

More specifically, and within psychoanalysis itself, Freud's theory has been criticized for its disproportionate emphasis on biological givens and its relative neglect of social and cultural factors in determining the development, structure, and functioning of personality. Among those who have offered revisions of Freudian theory in the direction of giving greater recognition to the interpersonal, social, and cultural determinants of personality, and who, because of their revisionist tendencies, have become known as Neo-Freudians are: Karen Horney, Erich Fromm, Harry Stack Sullivan, and Frieda Fromm-Reichmann.

Until the late 1920's the study of personality was largely in the hands of the clinician. Then, at Harvard, Gordon W. Allport and Henry A. Murray, working for the most part independently, began their intensive studies of personality.

For Allport, the basic units of personality are traits, which are common to many if not all persons, with respect to which one person can be compared with another, and personal dispositions, which are uniquely individual. Although Allport has recognized the existence of traits common to all men, he has stressed the uniqueness of the individual, and pattern and growth in personality. The concept of "becoming" has been especially emphasized by Allport.

Murray is best known for having developed a detailed and explicit theory of human motivation and a comprehensive conceptual framework for the representation of personality and for having guided a many-pronged research approach to the study of individual lives. This resulted in the development of the assessment method, which employs a multiplicity of psychological tests and procedures and is the preferred method in the study of highly effective persons.

At about the same time, Kurt Lewin, then at the University of Berlin, was guiding an integrated program of research into the dynamics of behavior and formulating a conceptualization of the "life space" (the totality of facts that determine behavior at any moment) of an individual in terms of which his behavior could, it was hoped, be explained without reference to the person's history, which is so much emphasized in the psychoanalytic theory of personality development.

Attempts have been made, most notably by R. R. Sears, O. H. Mowrer, John Dollard, and Neal Miller, to employ the concepts of C. L.

Hull's stimulus-response theory of behavior in the representation of the development, structure, and functioning of personality, but with only limited success. The explanatory value of the stimulus-response concept, which for a time (1930–1950) seemed so promising in the study of partial and segmental responses of an organism, has not been very satisfactorily demonstrated in the study of that most complex organization, the human personality. This is not to say that the Yale group has made no contribution to the understanding of personality, but rather to point out that their most significant contributions have been made through their ingenious reformulation of psychoanalytic and anthropological concepts of personality into a sort of quasi stimulus-response theory of personality.

A much more significant development in the study of personality has been the application to it of the techniques of factor analysis, which first demonstrated their usefulness in studies of the structure of intellect.

Where earlier theories of personality were based on the results of observation and study of individuals in society, in the clinic, and in the experimental laboratory, factor theories of personality derive from the analysis of the relationships between large numbers of scores on large numbers of tests of personality that have been administered to large numbers of subjects. The scores thus derived from questionnaires, ratings, situational tests, etc., are intercorrelated with each other, and the matrix of intercorrelations are subjected to a factor analysis that is designed to reveal a smaller set of factors or source traits in terms of which the much larger number of surface traits measured by the several tests can be explained. Where earlier theories were often based on subjective impressions, factor theories are grounded on the results of statistical analyses of quantified scores. But the results of factor analysis are not as objective or as free from the subjective bias of the psychologist as such a statement might imply. After all, what comes out of any factor analytic study is determined by the particular tests that have been administered in the study. And when the factors are found, an element of subjectivity enters in when attempts are made to identify or name them. Finally, it must be noted that there are several different methods of factor analysis, and the different methods yield somewhat different results. Yet, whatever the shortcomings of factor theories of personality may be, they have this virtue: they are simple and explicit and based upon specifiable operations and measurement. They are

bound to be increasingly important in attempts to conceptualize the structure of personality.

Those mathematical psychologists who have developed the major methods of factor analysis—C. Spearman, C. Burt, G. H. Thomson, L. L. Thurstone, and W. Stephenson—have supplied the basic tools for the factor analytic approaches to personality, which have been most notably carried out by R. B. Cattell, H. J. Eysenck, and J. P. Guilford.

The concept of a self that is rich in philosophical and religious connotations was eliminated as a datum from psychology when, in the last quarter of the last century, psychology undertook to establish itself as a scientific discipline, and this despite the efforts of James M. Baldwin, G. Stanley Hall, William James, and John Dewey at the turn of the century to put the self on an empirical footing. One of the most significant developments in psychology and especially in the psychology of personality during the last twenty years has been the readmission of the self into psychological science as a proper object of study. Interestingly, it was not a psychologist but the social philosopher, George H. Mead, who reintroduced the self into scientific discourse as the unit of personality and along with it the concept of role as the unit of socialization.

So widespread has been the revival of interest in the self and so numerous the attempts to conceptualize it as a substructure of personality worthy of study and necessary for the explanation of human experience and behavior, that it is difficult to find a theory of personality today that does not provide some place for the concept of self. Yet it is possible to single out those theories of relatively recent origin that have given the concept of self so central and crucial a role as to justify their designation as self theories of personality. There are the several theories of self and ego (P. M. Symonds, P. A. Bertocci, K. Koffka, I. Chein), of the phenomenal self (Donald Snygg and A. W. Combs), of the subjective self (H. Lundholm), of the empirical selves (T. R. Sarbin), and of the inferred self (E. R. Hilgard). Those who have emphasized the importance of the self have tended also to stress the roles, conditioned by the society and the culture, that the self in the course of its socialization learns to play. G. H. Mead was a pioneer in this line of conceptual development, which has appealed to and has been further developed most significantly by the sociologists and social psychologists, and which has found its fullest expression in the role theory of human behavior and personality (Sarbin).

During the years in which academic psychology was so wary of the

self, there were students of personality, many of them clinicians, who had always found need and place for a self in their theories of personality. Among these are to be noted several already mentioned: Freud, Jung, Adler, Sullivan, Allport, Cattell, Murray, and also A. Angyal and G. Murphy. Among academic psychologists who have stressed not only the self, but have paid special attention to the development of personality, delineating the various phases of its growth, have been J. M. Baldwin, G. Stanley Hall, Florence Goodenough, and Erik H. Erikson. (See *Child Development*)

A final theme in the history of the study of personality has been the consistency of personality over a period of time. Two major long-term researches in this area, each of which has been a notable scientific achievement, have been L. M. Terman's longitudinal study of the personality traits of the intellectually gifted, and E. K. Strong's study of the development and constancy of interests.

What are the functions of personality?

To ask this question is to inquire as to how the individual either adjusts or responds creatively to the situations in which he finds himself. Since adjustment and creative response are mediated by that part of the personality that is conceptualized as the ego, we must, if we are to speak precisely, refer to these as functions of the ego.

Basically the ego of the personality has two functions: (1) to perceive or cognize the situation in which an individual is (the perceptual or cognitive functions), and (2) to do something about it (the executive or motor functions). In its perceptual functions, the ego mediates knowledge both of the outer world and of the inner self, and in its executive functions, it guides and controls the actions of the individual. Basically, the main function of the ego is that of integration, bringing together in representation to the person the inner and outer realities and controlling and guiding those actions that serve to bring into harmony subjective demands and external circumstances, and effecting the satisfaction of as many inner needs as the external circumstances permit. The integrating functions of the ego mediate, at a lower level of control, the adjustment of the individual to the situation in which he finds himself, and at a higher level, they guide those behaviors that permit the individual to express himself in creative actions, changing the environment and actualizing himself through the development and expression of his individual potentialities.

What factors determine the development of personality?

The determinants of personality are tremendously varied and numerous, and none of them operates independently of the others. Yet despite their multiplicity and interdependence it is possible to conceptualize five broad categories of factors that most importantly determine the development of personality.

There are, first, *hereditary* factors, including those that determine certain physical traits and characteristics (eye color and height), as well as those that determine certain psychological traits and characteristics (emotionality and temperament). Much more is known about the former, "somatogenic" factors, than about the latter, "psychogenic" factors, though psychogenetics is rapidly becoming one of the most important areas of research in psychology.

Second, there are factors of *physical health and vitality*. These include differences in physiological and biochemical functioning, e.g., physical strength and level of energy, good health *vs.* chronic illness, normal functioning *vs.* disordered functioning of the endocrine system, etc., all of which have important consequences for the development of personality.

Third, there are factors of the *physical environment* that are vitally important for the healthy development of personality, for example, the various aspects of weather (temperature, humidity, and variability), the presence or absence of necessary foods and minerals, the percentage of oxygen in the air, and—increasingly important—the presence of noxious substances produced as by-products of modern industrialization.

Fourth, there are the factors of the *social environment*. These include the various aspects of culture and the social organization that the individual experiences: the values, beliefs, interests, attitudes, norms of behavior, and goals that he learns as a result of living in a collectivity of individuals and that are most importantly conveyed to him through his immediate family and those groups and communities of which he is a member.

Fifth, there are the unique psychological experiences of the individual or what may be briefly designated as *experiential* factors, most importantly early childhood experiences, but also experiences of adolescence and adulthood that influence in significant ways the development and functioning of personality. From the standpoint of the psychology of personality the experiential is the most important category of personality determinants.

Among the important early life-history determinants of personality

are the experiences that the infant and child has with the significant persons in his environment—mother, father, and siblings, as well as those in the extended family circle—who provide, with fortunate consequences, or fail to provide, with unfortunate results, a basic sense of security.

Factors that contribute to such a sense of security and to the development of a sound personality are: (1) a stable psychological environment or life space in which the child experiences love and support rather than hostility and rejection, consistent and kind though firm discipline rather than discipline that is capricious, harsh, or unfair, and is to a large extent permitted to be himself; (2) a physical environment that provides satisfaction of the basic physiological needs for food and physical security; (3) familial, societal, and cultural environments that supply the child with intellectual stimulation, richness and variety of experience, and an abundant supply of models (effective, mature, and psychologically healthy adults) with whom the child can identify and from whom he can learn the customs, norms, and values of society; and (4) an optimum ratio of experiences of gratification to experiences of frustration of important needs and drives so as to ensure, through gratification of basic needs, a development within the person of higher-order needs for intellectual achievement, aesthetic experience, and self-actualization, and through moderate frustrations, the development of the capacity to tolerate the inevitable frustrations of life without psychological breakdown.

Can the factors that determine personality be controlled?

Up to the present, the *genetic determinants* of personality have been almost completely beyond human control. Recent discoveries concerning the biochemical nature of the gene make it appear likely that in the not-too-distant future experimentation with genetic factors and control of them will be realized.

Factors of *physical health and vitality* are intimately connected with factors both of heredity and of the physical environment. In recent years they have come increasingly under the control of the scientist and the physician. Many genetically determined disorders of bodily structure and function can now be corrected through medical intervention, and disturbances of personality due to deficiencies in diet and vitamin intake can to a very large extent be corrected by the prescription of adequate diet and vitamin medication. Body size and energy

level can also, to some degree, be influenced by diet and other environmental factors.

Factors of the *physical environment* are no longer as immutable as they once were. Advances in irrigation and agriculture, in the chemical synthesis of vital elements of nutrition, in transportation of goods and materials, and even in the manufacture and control of weather provide the means whereby man can radically compensate for the physical deficiencies of his environment, but whether or to what extent they will be utilized depends upon the willingness and ability of men in their societal organizations to alter the social, political, and economic arrangements under which they presently live. To the extent to which they can do this in a rational and humanitarian fashion, they can also alter and control the factors of the *social environment* that are so crucial for the development of personality.

However, the *experiential* factors, and especially those that operate within the immediate family, are most immediately within the control of individuals as individuals. This is where control ought to be most readily exercised but in reality is often most difficult of achievement because of the close emotional relationships which so easily develop within the family constellation.

What are personality traits?

A personality trait is an enduring disposition or characteristic of a person that accounts for the relative consistency of his behavior. A distinction is often made between a "surface trait," a consistently manifested pattern of behavior (honesty and friendliness), and a "source trait," a part of the enduring structure of personality that is inferred from behavior and thought of as the cause of the consistency of behavior (neuroticism and ego strength). A second distinction is sometimes made between traits that are more or less "common" to all persons and those that are "unique" to an individual. Perhaps a more acceptable way to express this is not in terms of a dichotomy between traits that are common and those that are unique, but rather to say that traits vary from the universal through degrees of commonness to the completely unique.

How are personality traits determined by tests?

One major classification of tests of personality distinguishes "structured" tests from "partially structured" ones. Structured tests present the subject with a limited number of alternative responses to the items

of the test (e.g., "yes" and "no," or "yes," "no," and "?"). Most standardized personality questionnaires and inventories are structured tests (the California Psychological Inventory, the Minnesota Multiphasic Personality Inventory, and the Strong Vocational Interest Blank). Partially structured tests permit the subject much more freedom of response and are, in a sense, open-ended. Examples would include such projective tests as the Rorschach inkblot, the Thematic Apperception Test, Incomplete Sentences, etc., and situational tests such as charades and leaderless group discussions, etc.

Another classification distinguishes "rational" or *a priori* tests from "empirical" tests. In the development of both types of test, the test constructor conceptualizes some trait of personality and then prepares test items, responses to which he has reason to believe will reveal, in the person taking the test, the presence or absence of the conceptualized trait. The developer of a rational or *a priori* test stops there, confident that responses to his test do indeed indicate the presence or absence of the trait. The developer of an empirical test is less certain of his ability to write, in an *a priori* fashion, test items that do indeed tap the trait in question. Instead he validates his individual test items as well as his test as a whole against criterion groups, the individual members of which are independently specified as high or low on the trait to be measured. Only those items, responses to which discriminate highs from lows, are retained in the test. Presumably, then, the administration of the test to other comparable groups should place individuals relative to one another on the measured trait.

It is one thing to obtain measures of personality traits by structured and partially structured tests, and by rational and empirical tests. It is quite another matter to have the range and depth of experience with personality tests that alone provide ground for insightful understanding of the meaning of personality test scores.

How does the personality of an individual affect others?

The personality of an individual affects another person by what it does to, and how it is perceived by, that person, and of these two media of interaction, the latter is the more important. One may offer friendly advice to another, but if this is perceived not for what it is but as a hostile rejection, the person receiving the advice will act as though he has been insulted. Thus it is, that if we are to understand how our personality affects another, we must put ourselves in his place and perceive our personality and our actions as he perceives them. It is

not the physical, objective situation or the real nature of persons that most importantly determine an individual's behavior, but rather the situation and persons in it as they are perceived and experienced by the individual; in other words, by what Lewin has called the life space of a person. Freud has emphasized that often an individual's perception of another person and his reactions to him are the result of transferring to that person the emotional perceptions and reactions first evoked in that individual in infancy or childhood by the significant persons in his environment—mother, father, and siblings. When this occurs one behaves vis-à-vis another as though one were living in the past, reacting in a childish manner rather than as a mature, clear-seeing, psychologically healthy adult.

What determines the acceptability of certain personality traits in different cultures?

Everyone is born with many more potentialities for human experience and behavior than will ever be developed and utilized. Every society has its own pattern of culture and every segment of society its own subculture that singles out, rewards, and establishes, through the process of acculturation and education, a small subset of responses and modes of experience from man's total repertoire of potentialities, as Ruth Benedict vividly demonstrated in her book, *Patterns of Culture*. No one person's speech, for example, and similarly no language, uses all of the units of sound and intonations of voice that man is capable of making; and so it is with all possibilities of experience and behavior.

Each society has its own formulas for the approved ways of behaving and typically has many different formulas for its different classes and segments, and different formulas for the same person at different periods in the life cycle. These formulas, which are one aspect of culture, provide the individual with ready-made patterns of response by means of which he can satisfy his needs and solve his problems. They are not single and isolated patterns of response or formulas for action but are integrated into a complex configuration of approved ways of behaving, which makes for a certain economy and efficiency in the functioning of society.

Murray has called these the *t p m o* formulas for the satisfaction of human needs. They differ from society to society, but in each there is a culturally approved *time* for the satisfaction of any given need, a proper *place* where it is to be satisfied, an accepted *mode* or manner

of satisfying it, and a certain *object* or objects appropriate for its satisfaction. The incorporation of these culturally determined *t p m o* formulas into the behavioral repertoire and personality structure of an individual provide him with a design for living and ready-made patterns of behavior appropriate for the society and culture in which he lives.

The problem for the individual so far as his psychological health and effective functioning are concerned is that many of the demands of culture are arbitrary, inconsistent, and discontinuous. The reason why the psychosexual development of individuals is so often difficult is that the socially approved *t p m o* formula for the satisfaction of pre-genital sexuality is radically different from the socially approved and required *t p m o* formula for the satisfaction of mature, genital heterosexuality.

What causes a disturbed personality?

The factors responsible for development of disturbances in personality are known as etiological factors (etiology—the study of causes or origins, especially of a disease), and a distinction is often made between etiological factors that are *predisposing* and those that are *precipitating*.

Predisposing factors are states or conditions that predispose or make a person vulnerable to some disorder. They, in turn, are of two kinds: "constitutional" factors (e.g., a cycloid temperament that predisposes one, provided he is under sufficient stress to experience a psychotic break, to develop a manic-depressive psychosis); and "experiential" factors, such as learned habits of thought or mechanisms of defending oneself against intolerable images and impulses (e.g., the ego-defense mechanism of repression which, if strongly developed in a person under sufficient stress to experience a psychoneurotic disturbance, predisposes him to develop hysteria). (See *Hysteria; Mental Mechanisms*)

Precipitating factors are the specific experiences which, given the presence of predisposing factors, result in disturbances of personality.

Among the precipitating factors, two are to be especially noted: experiences of "frustration" and experiences of "conflict." If a frustration experience is to result in a disturbance of personality it is likely to involve the frustration of some basic and central need (e.g., the physical disfigurement of a woman whose chief ego-identity is with herself as a striking beauty). If a conflict is to result in a disturbance of personality it will characteristically be of such a nature as to involve

the person in a moral problem that he is incapable of resolving and that arouses in him the core or basic emotion of psychoneurotic and psychotic disturbance, namely, anxiety. (See *Anxiety*)

Basic to all disturbances of personality are disorders in both its perceptual or cognitive and its executive or control functions, but the relative role or importance of the two functions varies from one type of personality disturbance to another.

In general, psychoneurotic symptoms stem most importantly from an overdevelopment and excessive functioning of control mechanisms (e.g., repression, reaction formation, etc.), whereas character disorders such as psychopathy and delinquency are largely the result of an insufficient development and functioning of mechanisms of self-control. Psychoses, on the other hand, result primarily from disturbances in the perceptual functions of personality: the psychotic's perceptions both of himself and of the outer world fail to correlate with the reality. (See *Psychoses*)

Given the distorted perceptions of the psychotic, his behavior, no matter how bizarre or uncontrolled it may seem to others, is appropriate to his situation as he perceives it.

What are the major classifications of disturbed personalities?

Disturbed personalities may be classified as: (1) the *inhibited*, (2) the *psychoneurotic*, (3) the *psychotic*, and (4) the *sociopathic*. All of these stand in contrast to the more or less "normal," well-adjusted person, and the "supernormal," fully functioning, creative individual.

The inhibited personality is one in which there is an excessive development of a judgmental attitude that leads to a too harsh judgment of the self and unjustified feelings of guilt and inferiority. Though such a person may not manifest specific psychopathological symptoms, he is not a fully developed individual since he eliminates from his own experience much that is human because it seems to him either bad or impossible.

The psychoneurotic personality is one that becomes incapacitated by symptoms that are the result of the enduring conflict of strongly opposed needs. In the case of the psychoneurotic the conflict is not resolved by a conscious decision to renounce or deny satisfaction to one need and to accept and satisfy the other. Instead the disturbing impulse or wish is made ego-alien (denied or repressed); but since this does not resolve the conflict, the two opposing forces find expression in the conflictual emotion of anxiety and in the formation of symptoms that

compromise rather than resolve the needs that are in conflict. The psychoneurotic personality is characterized by anxiety or the conversion of anxiety into physical symptoms, phobias, compulsions, and obsessions. Psychoneurosis disrupts the personality only partially; the psychoneurotic has insight into the fact that he is sick and recognizes that his symptoms are manifestations of a morbid state.

The psychotic personality is one in which the disturbance of the perceptual functions is so great that the person is out of touch with reality and typically is in need of institutional care since he cannot take care of himself and often is a danger or threat to others. Psychosis is a more extreme form of personality disorder than is psychoneurosis. Psychosis disrupts all functions of the personality; the psychotic does not have insight into the fact that he is sick and does not understand that his symptoms are manifestations of morbidity. While there is a clearly demonstrable neuropathology in some types of psychotic personality (e.g., lesions in the brain caused by *Treponema pallidum*—the infectious agent responsible for syphilis—in the case of general paresis, and brain lesions resulting from insufficient nourishment of neural tissue due to hardening of cerebral arteries in the case of cerebral arteriosclerosis), the two most common forms of psychosis, manic-depressive psychosis and schizophrenia, do not have a demonstrated neuropathological basis. Manic-depressive psychosis is characterized by a disorder of affect and mood, the patient vacillating between euphoric mania and depressed lethargy and stupor. In schizophrenia there are extensive disturbances of perception, thought, feeling, and behavior, the usual congruence of these psychological processes no longer occurring.

In contrast to inhibited and psychoneurotic personalities, which are in a sense or at least in a part of the personality (the overdeveloped superego or conscience) too socialized, the sociopathic personality shows an underdevelopment of these controlling substructures. It is an insufficiently socialized personality into which there has not been incorporated, to an adequate degree or with effective integration, the standards and customs and values of society, including its positive commands and its prohibitions. The classification, "sociopathic personality," includes what was in an earlier period termed "the moral imbecile," and the "constitutionally psychopathic inferior" personality, as well as those types of disturbed personalities designated as psychopaths, and certain delinquents, and criminals. The sociopath does not have symptoms in the sense that psychoneurotics and psychotics do. Instead he shows disturbances in his behavior. It is as though the neurosis of the sociopath

is built into his personality or character structure. For this reason the sociopath is sometimes described as having a character disorder. Among the disturbances of his behavior are marked impulsiveness, antisocial tendencies, amorality, and an inability to modify patterns of behavior despite their repeated painful consequences and despite the fact that the sociopath is often, in other respects, a very intelligent person. (See *Character Structure*)

What are the treatments for disturbed personalities?

All treatments or therapies for disturbed personalities have this in common: they seek to change the personality structure so that the person can function more effectively either by more adequately adjusting to the demands of his life situation or by more completely developing and expressing the potentialities of his being.

Techniques designed to change directly the personality structure of an individual constitute *psychotherapy*, while those that are employed to change the personality structure of a patient indirectly through manipulating and changing his environment are known as *sociotherapy* or *milieu therapy*.

Psychotherapy may involve one therapist working with one patient (individual psychotherapy), or one or more therapists working with a group of patients (group psychotherapy).

Psychotherapies vary along another dimension, that of superficiality and depth. Some therapies seek to effect only superficial changes in personality structures while others attempt to effect changes that are radical and profound.

In general, the goals of psychotherapy are to help the patient come to a better understanding of himself and his situation and to help him acquire a more conscious and more adequate control and expression of himself. In short, psychotherapy aims to strengthen the perceptual (cognitive) and executive (motor) functions of personality. (See *Family Psychotherapy*; *Group Psychotherapy*; *Psychotherapy*)

In some cases the disturbance of personality is so great and the ego of the patient so weak that any attempt to gain deep insight or to extend the responsibility of the patient to larger domains of action is too dangerous an undertaking. In these instances therapeutic intervention has to be, for the most part, superficial and mainly *supportive*. For those patients who are not so seriously disturbed and whose egos are sufficiently strong, therapy of a deeper sort that aims at increasing self-

understanding and conscious control, in other words *insight* psychotherapy, may be the more appropriate form of treatment.

Psychotherapies that have as their aim increasing the self-insight of the patient are of two kinds: *directive* and *nondirective* therapy. Psychoanalysis as developed and practiced by Sigmund Freud and his associates is the prototype of directive therapy in which the therapist plays an active role analyzing or interpreting the meaning of the patient's mental content (dreams, free associations, etc.) and behavior as these are revealed in the analytic situation. The clearest example of nondirective psychotherapy is Carl Rogers' client-centered therapy. Here no analysis or interpretation either of mental content or of behavior is offered. The patient is not directed in his search for an understanding of himself. He is, rather, left free, encouraged, and supported to become himself by giving free expression to his thoughts and to his feelings in the therapeutic situation. At most the therapist reflects the feelings expressed by the patient. Through experiencing much that was earlier repressed or denied, the patient becomes more fully himself.

Drugs and hypnosis are being increasingly used as adjuncts to the more usual forms of psychotherapy. Among drugs there are many that alter the mood and psychic tempo of the patient in a more desired direction. Hypnosis is also sometimes used to suggest changes in mood and behavior, but if unaccompanied by other forms of psychotherapy, hypnotic suggestions—although they may relieve symptoms—do not remove their causes. Hypnosis along with such drugs as Sodium Amytal and Sodium Pentothal is also used to revive lost memories, often of a traumatic nature, following the repression of which incapacitating symptoms have developed and upon the recall and integration of which the symptoms disappear. (See *Hypnosis; Psychopharmacology*)

In addition there are the shock therapies, which are sometimes helpful, especially with psychotic patients—insulin shock therapy with schizophrenics, and electroshock therapy with manic-depressive and depressive patients.

Are there studies or researches going on at this time into the nature of personality? How can this serve the general cause of mental health?

Freud was the modern pioneer in the investigation of personality. As a medical doctor and psychoanalyst, he studied, almost exclusively, sick and disturbed persons. His work more than any other has influenced and directed researches into personality. It is, therefore, not sur-

prising that the majority of studies have focused upon disturbed personalities and problems of psychopathology.

Beginning with the work of Murray and Allport at Harvard in the 1930's, and increasingly since World War II, the focus has shifted to the study of normal persons and effective functioning. During World War II it became apparent that our greatest need, if we were to survive as a nation, was to discover our human resources, especially our scientific and technological talents, and to develop and utilize them to the fullest degree possible. The concern with human potential and its development was further deepened and extended when *Sputnik I* was shot into orbit by the Soviet Union.

The mental hygiene movement had traditionally emphasized the study of mental disorders, but within the last fifteen years there has been an increasing number of researches into psychological health and personal soundness.

Among the new problems that have been brought under clinical and experimental investigation in recent years and that are still being most actively studied are: the characteristics and life history determinants of personal and professional effectiveness, of fully functioning individuals, and of self-actualizing persons; the process of "becoming" as opposed to mere "being"; psychological health and personal soundness; independence and originality in thought and action; the creative process, creative potential and creative talent.

It would be wrong to imply that all interest in the psychopathological expressions of personality is a thing of the past. In many ways it is as lively as ever and, indeed, producing researches that are vastly superior in theoretical conception, experimental design, and methodological sophistication when compared with the early pioneering efforts. To cite only one example, there is probably no problem in the domain of human behavior being investigated more intensively or with more financial support than the problem of juvenile delinquency. But it is nevertheless true that the balance in personality research is being righted. The earlier almost exclusive concern with the negative, unhealthy, and destructive aspects of personality has given way to an equal emphasis upon the positive, healthy, and creative factors in the structure and functioning of persons. Where the earlier studies had implications for what might be done to prevent disturbances of personality, the newer researches are rich in implications as to what may be done to nurture psychological health and personal soundness and the fullest realization of each individual's creative potential.